

Fixed Private Capital in the United States

- Revised Estimates, 1925-81
- Estimates by Industry, 1947-81

BEA has prepared revised annual estimates of fixed private capital stock.¹ The revised estimates represent a considerable improvement over previous BEA estimates of fixed private capital. First, the estimates for the entire 1925-81 period have been revised because new information has been incorporated into the perpetual inventory calculations used to derive them. The new information is on service lives, allocations of investment by major industry group and legal form of organization, and intersector transfers of used assets. Second, for 1947-81, industry detail has been expanded from three major industry groups (farms, manufacturing, and nonfarm nonmanufacturing) to 60 industries (essentially the two-digit industry detail of the 1972 Standard Industrial

NOTE.—Helpful comments on earlier drafts of this article were provided by John E. Cremins, Edward F. Denison, Jack G. Fancett, Martin L. Marimont, and Jerome A. Mark.

1. Other parts of BEA's work on measuring the Nation's tangible wealth have provided annual estimates of durable goods owned by consumers and fixed capital owned by governments and annual and quarterly estimates of business inventories. Future research will provide estimates of inventories owned by governments and consumers.

Estimates of durable goods owned by consumers and fixed capital owned by governments for the period 1925-79 are found in U.S. Department of Commerce, Bureau of Economic Analysis, *Fixed Reproducible Tangible Wealth in the United States, 1925-79* (Washington, DC: U.S. Government Printing Office, March 1982). Revised and updated estimates for the years since 1973 are available in the following issues of the *SURVEY OF CURRENT BUSINESS*: 1973-79, October 1982; 1980-83, August 1984.

Estimates of the stock of business inventories annually for the years since 1928 and quarterly for the years since 1947 are found in Shirley P. Loftus, "Stocks of Business Inventories in the United States, 1928-71," *Survey* 52 (December 1972):29-32. Revised and updated estimates for the years since 1947 are found in the following sources: 1947-76, U.S. Department of Commerce, Bureau of Economic Analysis, *The National Income and Product Accounts of the United States, 1929-76: Statistical Tables* (Washington, DC: U.S. Government Printing Office, 1981); 1977-79, *Survey*, July 1982; 1980-83, *Survey*, July 1984. Inventory estimates for the period since 1983 appear in the regular national income and product accounts tables in the *Survey*; the current-dollar series are in table 5.10, and the constant-dollar series are in table 5.11.

Classification). Moreover, the validity of the perpetual inventory estimates has been tested by comparisons with independently derived estimates of fixed private capital based on book value data from the 1977 economic censuses and the Internal Revenue Service (IRS) *Statistics of Income*.

The industry capital stock estimates provide information for several types of analyses. They may be used to determine the relations between capital and employment and also between capital and output, and to analyze how these relations differ by industry over time. They may also be used to derive estimates of capital productivity and total factor productivity by industry, and they are useful in assessing the adequacy of capital in particular industries. They also provide a measure of how the industrial

mix of capital has changed over time and, consequently, a measure of one determinant of industry growth.

With the expansion of the industry detail, two characteristics of BEA's capital stock estimates have taken on increased importance. First, leased capital assets are recorded in the stock of the lessor (owner) rather than in that of the lessee (user). Leased assets are recorded in this manner in order to be consistent with the national income and product accounts (NIPA) measures of product and income by industry, which record the income and depreciation associated with these assets in the industry of the owner.²

Second, the industrial classification of the BEA stock estimates is based on the 1972 Standard Industrial Classification, and data for the estimates are for "establishments" rather than "companies." Establishments, as defined for the Standard Industrial Classification, are economic units, generally at a single physical location, where business is conducted or where services or industrial operations are performed. Companies are one or more establishments owned by the same legal entity or group of affiliated entities. Establishments are classified into an SIC industry on the basis of their principal product or service, and companies are classified into an SIC industry on the basis of the principal SIC industry of all their establishments. Because large multi-establishment companies typically own establishments that are classified in different SIC industries, industrial distributions of the same item can be significantly different. For residential capital, each dwelling is considered to be an establishment; farm dwellings

The stock estimates in this article were prepared using the investment flows presently published in the national income and product accounts (NIPA's). These flows will be revised in the comprehensive revision of the NIPA's scheduled for publication at the end of 1985. The stock estimates will then be revised to incorporate the new flows.

The gross and net stock estimates shown in this article, together with the associated estimates of depreciation and discards, the investment flows used to derive them, and estimates of gross and net stocks, depreciation, and discards in historical-cost valuation are available on a computer tape. To order this tape, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230. Please specify BEA Industry Capital Stock Data Tape and include remittance for \$200.00 payable to "Economic and Statistical Analysis, BEA."

In 1986, BEA will publish revised and updated estimates of the stock and associated series, together with estimates of average ages of gross and net stocks and a more detailed statement of sources and methods. Availability of this publication will be announced in the *SURVEY OF CURRENT BUSINESS*.

2. For "safe harbor" leases (authorized by the Economic Recovery Tax Act of 1981), in which the lessee retains ownership of the asset and merely transfers tax benefits to the lessor, the asset is recorded in the stock of the lessee.

Table A.—Comparison of Revised and Previous BEA Estimates of Constant-Dollar Gross Stocks of Fixed Nonresidential Private Capital, Selected Years, 1925-81

(Ratio of revised estimates to previous estimates)

Major industry group and legal form of organization	1925	1929	1939	1948	1969	1972	1977	1981
All industries, total	1.00	1.00	1.12	1.06	1.05	1.05	1.06	1.06
By major industry group								
Farms	1.03	1.01	.98	.97	.93	.94	.95	.95
Manufacturing	.87	.88	.89	.89	.99	1.03	1.06	1.04
Nonmanufacturing	1.17	1.19	1.22	1.16	1.08	1.07	1.07	1.07
By legal form of organization								
Corporate	1.06	1.06	1.09	1.03	1.06	1.06	1.07	1.08
Nonfinancial	1.05	1.05	1.05	1.02	1.06	1.07	1.06	1.08
Noncorporate	1.19	1.20	1.21	1.14	1.03	1.04	1.02	1.00

NOTE.—Years shown are the beginning and end of series, years closest to the peaks of the National Bureau of Economic Research reference cycle, and 1977.

owned by farm operators are classified in the farm industry, and all other dwellings are classified in the real estate industry.

In this article's first section, the revised stock estimates for 1925-81 are compared with the previous BEA stock estimates. Next, the derivation of the investment flows used to derive the stock estimates, including the expanded industry detail for 1947-81, is described. Then, the derivation of the stock estimates from the investment flows is described. Finally, comparisons between the revised stock estimates and two sets of independently derived book value estimates are described.

Following the text of the article, estimates of current-dollar gross and net stocks of fixed private capital by industry for 1947-81 are shown, separately for nonresidential and residential capital, in tables 1 and 2. Corresponding stocks in constant (1972) dollars are shown in tables 3 and 4. Current-dollar gross and net stocks of fixed nonresidential private capital by major industry group and legal form of organization for 1925-81 are shown, separately for equipment and structures, in tables 5 and 6. Corresponding stocks in constant (1972) dollars are shown in tables 7 and 8.

Comparison of Revised and Previous BEA Stock Estimates

Both the revised and previous BEA stock estimates were derived using the perpetual inventory method and investment streams based on the same NIPA investment flows for the years since 1929; however, the two sets of estimates of constant-dollar gross stocks differ, as can be seen in table A. First, the revised total stock estimates are generally higher, because of the introduction of more detailed and more accurate service lives

that are generally longer than those used in previous BEA studies. The greatest proportionate effect of the new lives is for 1934-45, when investment was less than discards. With the resumption of substantial investment after 1945, this effect became less pronounced. Second, the revised corporate estimates are generally higher, because of the introduction of more detailed and more accurate allocations of investment by legal form of organization.

By major industry group, the comparisons in table A show considerably different patterns over the 1925-81 period. For farms for the years since 1929, the revised estimates are lower than the previous estimates because of the introduction of a shorter service life for the largest category of farm equipment (agricultural machinery, except tractors). For manufacturing, the revised estimates are lower than the previous estimates through the 1960's and higher after 1970. The lower estimates through 1969 resulted from the introduction of lower investment in structures by manufacturing industries for the years before 1947; the higher estimates after 1970 occurred because of the longer service lives. For nonfarm nonmanufacturing, the revised estimates are higher for all years, primarily due to the longer lives and also to the shift of pre-1947 structures investment flows from manufacturing to nonfarm nonmanufacturing; these factors more than offset the effect of the introduction into the revised estimates of transfers of privately owned transit systems and public utilities to government ownership.

By legal form of organization, the comparisons in table A show that, at the all-industry level, both the revised corporate and noncorporate estimates are higher than the corresponding previous estimates; however, the

amount of the difference between the two sets of estimates varies considerably over the 1925-81 period. Several factors account for the variation. First, shifting some pre-1947 investment from manufacturing, which is dominated by the corporate form of organization, to nonfarm nonmanufacturing, which is less corporate, lowers corporate stocks and raises noncorporate stocks through the 1960's. Second, introducing shorter service lives for the farm industry, which is largely noncorporate, lowers noncorporate stocks, especially since 1960. Third, introducing longer service lives in the manufacturing and public utilities industries, which are largely corporate, raises corporate stocks for all years. Fourth, introducing new legal-form allocations increases the corporate portion of investment in most industries, thus raising corporate stocks over time. Finally, introducing estimates of government purchases of privately owned transit systems and public utilities, which are largely corporate, lowers corporate stocks for the postwar period.

Derivation of Investment Flows

Overview

The perpetual inventory method used to derive the stock estimates starts with investment flows and obtains the gross capital stock for a given year by cumulating past investment and deducting the value of investment that has been discarded, based on average service lives and retirement patterns. The net capital stock is obtained by deducting the cumulative value of depreciation from the gross stock.

The investment flows used to implement the perpetual inventory method

were developed in the following manner. First, flows were derived for investment in new capital by type of asset for each industry and for transfers of used assets between private business and other types of owners. Next, the flows for each industry for investment in new and used assets were distributed by legal form of organization. Finally, the investment flows by type of asset, industry, and legal form of organization were deflated to constant (1972) dollars.

The investment flows of asset types by industry were developed especially for this study, because they had to meet several requirements not all met by data available from other sources: the all-industry totals for each type of asset had to equal the NIPA flows for that type of asset, and the industries had to be defined on an establishment and ownership basis. The level of asset detail that was developed permitted the use of new detail on service lives in deriving the stock esti-

mates and the use of more detailed price indexes in deriving the constant-dollar stock.

Series on investment estimates by industry are available from three major sources. The first series, from BEA's plant and equipment expenditures survey, provide annual data on investment in nonresidential capital by nonfarm industries, but these data are classified on a company basis, are not consistent with the NIPA investment totals (mostly due to industry

Table B.—Data Sources for Estimates of New Nonresidential Investment by Industry

Industry	Years before 1947	1947 and later years	Industry	Years before	1947 and later years
Agriculture, forestry, and fisheries			Communication:		
Farms	USDA, Gallman	USDA	Telephone and telegraph	NIPA, CMP, USDA, Ulmer	NIPA, CMP, USDA
Agricultural services, forestry, and fisheries	USDA	P&E	Radio and television broadcasting	Boddy & Gort	P&E
Mining	Historical Statistics, census of manufactures	Census of mineral industries (1954, 1958, 1963, 1967, 1972, 1977), ES, P&E	Electric, gas, and sanitary services	USDA, Ulmer, NIPA, CIP	DOE, USDA, NIPA
Construction	Boddy & Gort, Historical Statistics	Census of construction industries (1957, 1972, 1977), ES, P&E	Electric services	Ulmer, NIPA, CIP	DOE, NIPA
Manufacturing	Chawner, NIPA, CIP, Historical Statistics, Kuznets, Shaw	Census of manufactures (1947, 1954, 1958, 1963, 1967, 1972, 1977), ASM, ES	Gas services	Ulmer	P&E
Transportation and public utilities			Sanitary services		
Transportation:			Wholesale trade	Boddy & Gort	Census of wholesale trade (1958, 1963, 1967, 1972, 1977), P&E
Railroad transportation	ICC, NIPA, Ulmer, TA, CIP	ICC, NIPA, TA	Retail trade	CIP, Historical Statistics	Census of retail trade (1958, 1963, 1967, 1972, 1977), P&E
Local and interurban passenger transit	Ulmer, CIP	ICC, TA, CIP	Finance, insurance, and real estate		
Trucking and warehousing	NIPA, Ulmer, TA	ICC, census of wholesale trade (1958, 1963, 1967, 1972, 1977)	Finance and insurance	SOI, Historical Statistics	P&E, SOI, TA, FDC
Water transportation	NIPA, Historical Statistics	NIPA, ICC	Real estate	SOI, CIP	P&E, TA, SOI
Transportation by air	NIPA, Historical Statistics	NIPA, CAB	Services, except health, legal, educational, and other	SOI, TA	Census of service industries (1958, 1963, 1967, 1972, 1977), P&E
Pipelines, except natural gas	ICC, NIPA, CIP	ICC, NIPA	Health, legal, educational, and other services	SOI, TA	P&E
Transportation services	NIPA, ICC, CIP, Ulmer	ICC			

* Merchant wholesalers only.

ASN	U.S. Department of Commerce, Bureau of the Census, Annual Survey of Manufactures (Washington, DC: U.S. Government Printing Office, annual).
Boddy & Gort	Rayford Boddy and Michael Gort, "Capital Expenditures and Capital Stocks," <i>Annals of Economic and Social Measurement</i> 2 (1973); "The Derivation of Investment Expenditures and Capital Stocks," 1988. (Typeset).
CAB	Civil Aeronautics Board, <i>Air Carrier Financial Statistics</i> (Washington, DC: U.S. Government Printing Office, annual).
Chawner	Lowell J. Chawner, "Capital Expenditures for Manufacturing Plant and Equipment—1915 to 1940," <i>Survey of Current Business</i> 21 (March 1941): 3-15; "Capital Expenditures in Selected Manufacturing Industries," <i>Survey</i> 21 (December 1941): 19-28; "Capital Expenditures in Selected Manufacturing Industries, Part II," <i>Survey</i> 22 (May 1942): 14-23.
CIP	U.S. Department of Commerce, Business and Defense Services Administration, <i>Construction Statistics 1915-54: A Supplement to Construction Review</i> (Washington, DC: U.S. Government Printing Office, 1954).
DOE	U.S. Department of Energy, Energy Information Administration, <i>Statistics of Privately Owned Electric Utilities in the United States; Statistics of Publicly Owned Electric Utilities in the United States</i> (Washington, DC: U.S. Government Printing Office, annual).
ES	U.S. Department of Commerce, Bureau of the Census, <i>Enterprise Statistics</i> (Washington, DC: U.S. Government Printing Office, quinquennial).
FDC	Federal Deposit Insurance Corporation, <i>Assets and Liabilities—Commercial and Mutual Savings Banks</i> (Washington, DC: Federal Deposit Insurance Corporation, annual).
Gallman	Robert E. Gallman, "Commodity Output, 1889-1899," and Marvin W. Towne and Wayne D. Rasmussen, "Farm Gross Product and Gross Investment in the Nineteenth Century," both in <i>Trends in the American Economy in the Nineteenth Century</i> , Conference on Research in Income and Wealth: Studies in Income and Wealth, vol. 24 (Princeton: Princeton University Press for National Bureau of Economic Research, 1980).

Historical Statistics

ICC

Kuznets

NIPA

P&E

Shaw

SOI

TA

Ulmer

USDA

U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, DC: U.S. Government Printing Office, 1970).

Interstate Commerce Commission, *Transport Statistics in the United States* (Washington, DC: U.S. Government Printing Office, annual); Simon Kuznets, *Capital in the American Economy: Its Formation and Financing* (Princeton: Princeton University Press for National Bureau of Economic Research, 1961).

1929-78: U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts of the United States, 1929-78: Statistical Tables* (Washington, DC: U.S. Government Printing Office, 1981); 1976-78: *Survey* 62 (July 1982); 1979-81: *Survey* 63 (July 1983). See the following tables: current-dollar expenditures, tables 5.4 and 5.5; constant-dollar expenditures, tables 5.6 and 5.7; implicit price deflators, tables 7.19 and 7.20.

George R. Groen and Marie P. Hertzberg, "Revised Estimates of New Plant and Equipment Expenditures in the United States, 1947-77," *Survey* 58 (October 1980): 24-29; Michael J. McElvey, "Constant-Dollar Estimates of New Plant and Equipment Expenditures in the United States, 1947-68," *Survey* 61 (September 1981): 20-41; and Eugene P. Seekin and David F. Sullivan, "Revised Estimates of New Plant and Equipment Expenditures in the United States, 1947-68," *Survey* 66 (February 1986): 16-47.

William H. Shaw, *Value of Commodity Output Since 1869* (Princeton: Princeton University Press for National Bureau of Economic Research, 1947).

U.S. Department of the Treasury, Internal Revenue Service, *Statistics of Income: Corporation Income Tax Returns* (Washington, DC: U.S. Government Printing Office, annual).

Trade association data.

Melville J. Ulmer, *Capital in Transportation, Communications, and Public Utilities: Its Formation and Financing* (Princeton: Princeton University Press for National Bureau of Economic Research, 1960).

U.S. Department of Agriculture, Economic Research Service, *Rural Income Statistics* (Washington, DC: U.S. Government Printing Office, annual).

coverage), and provide only a two-way split by type of asset—total equipment and total structures. The second series, collected by the Census Bureau for the industries covered by the economic censuses (mining, construction, manufacturing, wholesale trade, retail trade, and selected services), provide data on investment, but these data are available only quinquennially and also provide only a two-way split into total equipment and total structures (as does the Census Bureau's annual survey of manufactures). The third series, capital flow tables prepared by BEA as part of the input-output (I-O) tables, provide distributions of investment by type of asset for each I-O industry, but the data are available only for 1963, 1967, and 1972; are on a use basis rather than an ownership basis; and are classified by I-O industry rather than by NIPA industry.³

The investment flows for nonresidential capital were derived in several steps in this study. First, annual investment control series for total equipment and for total structures were derived for each industry from the sources given in table B. Second, the flows for investment by type of asset were derived by modifying the NIPA series on fixed investment. Because the all-industry totals for equipment and those for structures did not equal the corresponding NIPA totals, they were adjusted to equal them. The adjustment process was based on BEA's assessment of the relative quality of the various sources of industry investment data and on indications from the capital flow distributions that the investment totals for certain industries for certain years were not consistent with the NIPA totals for these years for the types of assets owned by those industries.

Finally, modified capital flow tables for 1963, 1967, and 1972 were used to derive the investment data by type of asset for each industry. The distributions from these tables were modified from a use to an ownership basis and from an I-O to a NIPA industry classification. For the years between 1963 and 1972 (except 1967), interpolations between the capital flow tables were used to distribute the NIPA flows by type of asset. For other years, the

nearest capital flow table was used to distribute the NIPA flows by type of asset. In this step, an iterative procedure was used to derive the individual industry investment flows by type of asset so that (1) the asset flows at the all-industry level equaled those of the NIPA's, and (2) the industry investment totals for equipment and structures were as close as possible to those derived from the independent industry sources.

New nonresidential investment

This section describes the derivation of the investment flows for the detailed industry stock estimates beginning in 1947. In order to derive these stock estimates, it was necessary to derive control totals for investment flows in new nonresidential capital by industry beginning in 1921 for equipment and in 1900 for structures. Also, to derive stock estimates by major industry group for 1925-46, it was necessary to derive investment control totals for farms, manufacturing, and nonfarm nonmanufacturing going back into the nineteenth century, as in previous BEA studies. The data sources used to derive both of these sets of investment flows are given in table B.

Investment controls by industry.—The industry investment control totals were derived from several sources—some provided information for selected benchmark years and others for post-1947 interpolations between and extrapolations from the benchmark estimates. Because many of these sources began in 1947, other sources were used to extrapolate the control totals prior to 1947.

The source data for each industry were adjusted so that the control totals conformed to the concepts desired. The adjustments related to industrial classification, establishment basis, central administrative offices and auxiliaries, ownership basis, and employee-owned autos.

1. *Industrial classification.* Establishment-based source data not on the basis of the 1972 Standard Industrial Classification were converted to this basis.
2. *Establishment basis.* Where necessary, the plant and equipment expenditures survey (P&E) and *Statistics of Income* series were adjusted from a company basis to an establishment basis.

3. *Central administrative offices and auxiliaries.* For the mining, construction, and manufacturing industries, the capital expenditures data from the economic censuses were adjusted to include capital expenditures by central administrative offices and auxiliaries, using data from the Census Bureau's *Enterprise Statistics*.

4. *Ownership basis.* To derive industry stocks by establishment industry on an ownership basis rather than a use basis, several conventions were adopted. First, assets owned by one industry and leased to other industries were classified in the stock of the establishment industry owning the assets. Second, for assets used in establishments of multi-industry companies where the legal owner of the assets was the parent company, the assets were classified in the industry of the establishment where they were used. Third, assets owned by manufacturers' sales branches and offices were classified in the wholesale trade industry. Finally, assets owned and used by nonprofit institutions serving individuals were classified in the real estate industry; this convention was adopted to maintain consistency with the NIPA classification of these assets.

5. *Employee-owned autos.* The basic source data for each industry did not include expenditures for autos owned by individuals and used wholly or partly for business purposes; therefore, the expenditures attributable to business use were calculated and included, as discussed later in the section on autos.

After the industry investment controls for equipment and structures were estimated, they were adjusted judgmentally so that the all-industry totals for equipment and for structures were equal to the equipment and structures totals of the NIPA's. In this process, BEA assumed that the data from the economic censuses were the most accurate. Therefore, controls for census-covered industries were adjusted only if they differed significantly from the totals implied by the NIPA estimates for asset types owned by these industries. The remaining

3. BEA's capital flow table for 1977 is in preparation and will be incorporated into the revised and updated stock estimates to be published in 1988.

differences were allocated to the remaining industries so that the individual industry totals for a particular year were consistent with the NIPA totals for the types of assets owned by these industries.

Investment controls by type of asset.—For the years beginning with 1929, the flows for investment in new nonresidential capital by type of asset were derived from the NIPA series on the nonresidential fixed investment component of gross private domestic investment. For the years before 1929, the NIPA flows were extrapolated back into the nineteenth century based on data from various public and private sources.

The investment series for electric light and power structures was modified to produce stock and depreciation estimates consistent with the availability of the capital asset to contribute to income and output and with the timing of tax depreciation. The flows were modified from a "value-put-in-place" basis—i.e., the value of new construction put in place in a particular year, both on plants completed or under construction in that year—to a "when-completed" basis—i.e., the value of plant actually completed and put into service during the year. Flows for other types of structures were not modified, because the value of the uncompleted plant has been both small and stable relative to the value of completed plant. For electric light and power structures, however, the value of uncompleted plant has been large and has been rising sharply relative to the value of completed plant over the past two decades.

Distribution by type of asset and industry.—The NIPA flows for investment in new nonresidential capital by type of asset were distributed by industry using data from BEA's capital flow tables for 1963, 1967, and 1972.⁴ However, before the capital flow tables were used, they were modified because they provided the distribution

of assets on an I-O industry classification basis and on a use basis. First, investment by nonprofit institutions serving individuals was reclassified from the services industries to the real estate industry, and force-account construction was reclassified from the construction industry to the industry performing the construction. Second, the distributions were converted from a use to an ownership basis, using unpublished data from the I-O studies. The two modifications yielded the detailed type of asset by industry distributions for equipment and structures for 1963, 1967, and 1972.

For years not covered by capital flow tables, the NIPA investment flows by type of asset were distributed by industry as follows. As a first approximation, each type of asset was distributed by industry based on modified capital flow distributions: for 1962 and all prior years, the 1963 table; for 1964-66, interpolations between the 1963 and 1967 tables; for 1968-71, interpolations between the 1967 and 1972 tables; for 1973 and all subsequent years, the 1972 table. Second, the asset types allocated to each industry were summed to totals for equipment and for structures within the industry; these totals were then adjusted to equal those for the industry controls. Third, the industry estimates by type of asset, from the previous step, were summed by type of asset and then adjusted to equal the NIPA totals for each asset type. Finally, these last two steps were repeated until the asset investment totals equaled the NIPA asset totals and the industry investment totals for equipment and for structures were as close as possible to the industry control totals derived from independent sources.

New residential investment

For the years since 1929, the flows for investment in new residential capital by industry were derived from the NIPA series on the residential fixed investment component of gross private domestic investment. For the years before 1929, the flows were based on data from various public and private sources.⁵

In the distribution of residential investment flows by industry, investment in farm and nonfarm structures was allocated between owner occupied

and tenant occupied; other nonfarm residential structures (dormitories, fraternity and sorority houses, nurses' homes, etc.) were grouped separately. Investment in farm residential structures was allocated between owner occupied and tenant occupied separately for 1-to-4-unit structures and mobile homes using Department of Agriculture data. All owner-occupied farm residential structures were included in the farm industry; tenant-occupied farm residential structures were distributed between those owned by farm operators, included in the farm industry, and those owned by non-farm landlords, included in the real estate industry.

Investment in nonfarm residential structures was allocated between owner occupied and tenant occupied separately for 1-to-4-unit structures, 5-or-more-unit structures, and mobile homes using information from the following Census Bureau reports: *Census of Housing* (decennial), *Annual Housing Survey* (annual), *Characteristics of New Housing* (annual), *Residential Alterations and Repairs* (quarterly), and *Housing Vacancies* (quarterly). All nonfarm residential structures were included in the real estate industry, as was all residential equipment, which is defined to be nonfarm tenant occupied.

Transfers of used assets

Next, the value of transfers of used assets was added to the flows of new investment by industry. Data were only available to adjust for transfers among different types of owners (private business, governments, households, and foreigners). These data were based, for the most part, on modified NIPA flows for net purchases of used assets. Data were not available to adjust for transfers among industries or among legal forms of organization.

Nonresidential investment.—The largest transfers of used nonresidential capital assets between private

4. BEA's capital flow tables are described in the following publications: 1972 table, U.S. Department of Commerce, Bureau of Economic Analysis, *New Structures and Equipment by Using Industries, 1972: Detailed Estimates and Methodology*, by Peter E. Coughlin and Albert J. Walderhaug, BEA Staff Paper 85 (Washington, DC: U.S. Government Printing Office, 1980); 1963 and 1967 tables, U.S. Department of Commerce, Bureau of Economic Analysis, *Interindustry Transactions in New Structures and Equipment, 1963 and 1967*, 2 volumes (Springfield, Va.: National Technical Information Service, 1975).

5. U.S. Department of Labor and U.S. Department of Commerce, *Construction Volume and Costs, 1915-1958, Statistical Supplement to Construction Review* (Washington, DC: U.S. Government Printing Office, 1958); David M. Blank, *The Volume of Residential Construction, 1889-1958* (Princeton: Princeton University Press for National Bureau of Economic Research, 1954); and U.S. Department of Commerce, Bureau of Census, *Historical Statistics of the United States, Colonial Times to 1870* (Washington, DC: U.S. Government Printing Office, 1975).

business and other types of owners involve sales of used autos by private business to households, exports of used equipment, purchases of government surplus assets, and government purchases of privately owned public utilities. For autos, annual data were available on stocks and unit values of autos by type of owner; therefore, it was not necessary to make explicit adjustments for net transfers of autos among types of owners.

In the NIPA's, exports of used equipment and purchases of government surplus assets by private business are valued at secondhand sales prices. For the industry stock estimates, however, these exports and most of the government surplus assets were valued at estimated original acquisition prices, so that the transferred assets were valued consistently with those remaining in the stock of the original owner. Government surplus assets that were built during wartime with special characteristics that added to their cost but that were of no use to their new owners in peacetime were valued at estimates of the prices that private business would have paid for new assets of equal productivity designed for the uses to which the surplus assets would be put. After the estimates of exports of used equipment and purchases of government surplus assets were revalued, they were distributed, in the years of transfer, by type of asset, to the industries involved, using data from the Census Bureau's foreign trade statistics and surplus property reports from the General Services Administration and the Department of Defense.

The NIPA flows of gross private fixed domestic investment and government purchases of goods and services do not presently include purchases by State and local governments of privately owned railroads, transit systems, electric utilities, and water systems. Therefore, annual estimates of the value of assets purchased by government were derived for each type of public utilities, separately for equipment and structures, and removed from the stock of the selling industry in the year of purchase. The estimates were based on data from the following sources: for railroads, *Moody's Transportation Manuals*; local transit, *Moody's Transportation Manuals* and the American Public

Transit Association; electric utilities, *Moody's Public Utility Manuals* and Department of Energy publications, *Statistics of Privately Owned Electric Utilities in the United States* and *Statistics of Publicly Owned Electric Utilities in the United States*; and water systems, *Moody's Public Utility Manuals*. Estimates for these purchases will be incorporated into the NIPA's in the comprehensive revision scheduled for publication at the end of 1985, with offsetting adjustments in government purchases and private fixed investment.

Residential investment.—The largest transfers of used residential capital among private business and other types of owners, and among industries, involve purchases of private housing by State and local governments, conversions of Federal military housing to private ownership, and transfers of farm housing to nonfarm ownership. The estimates of transfers among private business and governments were derived from the NIPA flows; the estimates of conversions of farm housing were derived from data from the censuses of housing.

Net transfers of existing residential structures between government and private business consist primarily of State and local government purchases of private housing to make way for new roads or buildings. In the NIPA's, these transfers are offsetting in government purchases and private fixed investment and are valued at sales prices. In the stock estimates, however, these transferred structures were treated as permanent losses from the housing stock rather than as shifts from the private to the public stock; the housing involved in these purchases was removed from the stock of the real estate industry in the year of government acquisition. World War II Federal military housing covered to private ownership after the war was transferred to the stock of the real estate industry in the year of conversion.

An important type of transfer that enters the industry stock estimates, but not the NIPA estimates of investment, is the post-World War II shift of farm housing in urban fringe areas to nonfarm housing. Estimates of the value of these transfers were derived from the censuses of housing and moved from the farm industry to the

real estate industry in the year of transfer.

Investment by legal form of organization

The estimates of investment in new and used assets for each industry were distributed by legal form of organization—corporate, sole proprietorships and partnerships, and other private business.⁶ These investment flows were then used to derive stock estimates by legal form for each industry. This procedure did not take account of shifts of existing assets from one legal form to another (for example, when an unincorporated enterprise incorporated). The information necessary to account for these shifts was not available.

Nonresidential investment.—Investment in nonresidential capital was distributed annually by legal form of organization within industries by subtracting estimates of investment by other private business and then distributing the remainder between corporations, on the one hand, and sole proprietorships and partnerships, on the other.

For other private business, investment by tax-exempt cooperatives was estimated from Department of Agriculture data, separately for the telephone and telegraph, electric services, and wholesale trade industries; investment by entities required to report rental income on nonresidential property in IRS Schedule E was derived from IRS data on investment and depreciation; and investment by nonprofit institutions serving individuals was derived from Census Bureau data on the value of new construction put in place and from trade association data.

6. Corporate business consists of the domestic activities of all entities required to file Federal corporate income tax returns; mutual financial institutions; private noninsured pension funds; cooperatives subject to Federal income taxes; nonprofit organizations that primarily serve business; Federal Reserve banks; and federally sponsored credit agencies. Sole proprietorships consist of all entities that would be required to file IRS Schedule C (Profit or Loss from Business or Profession) or Schedule F (Farm Income and Expenses) if the proprietor met the filing requirement, together with farm housing owned by farm operators. Partnerships consist of all entities required to file Federal partnership income tax returns. Other private business consists of all entities required to report rent and royalty income on the Federal individual income tax return in IRS Schedule E (Supplemental Income Schedule) if the individual met the filing requirement; tax-exempt cooperatives; owner-occupied nonfarm housing; and buildings and equipment owned and used by nonprofit institutions serving individuals.

For industries covered by the agriculture and economic censuses (farm, mining, construction, manufacturing, wholesale trade, retail trade, and selected services), the legal-form percentages for corporations and for sole proprietorships and partnerships for the census years were based on distributions of capital expenditures from the censuses; for noncensus years, the percentages were based on distributions of expenditures interpolated by IRS depreciation data. For other industries, the percentages for all years were based on the distributions of IRS depreciation data by legal form.

Residential investment.—For the farm industry, investment in residential capital was distributed by legal form of organization using data from the census of agriculture. For the real

estate industry, all investment in owner-occupied residential capital was assigned to other private business; investment in tenant-occupied residential capital was distributed by legal form using data from the Census Bureau's survey of residential finance; and investment in other nonfarm residential structures (dormitories, fraternity and sorority, houses, nurses' homes, etc.) was assigned to other private business.

Derivation of Stock Estimates

Service lives

The service lives used in the perpetual inventory method to derive the revised stock estimates are shown in table C, together with those used in

previous BEA estimates. For equipment, the new lives were generally based on industry studies conducted by the Treasury Department during the 1970's. For nonresidential structures, the lives were based on tax service lives in the 1942 edition of *Bulletin "F"* of the Treasury Department, book value data compiled by regulatory agencies, and Department of Agriculture data.⁷ For residential structures, the lives were based on those in a study by Raymond W. Goldsmith and Robert E. Lipsey, except for mobile homes, where the

7. U.S. Department of the Treasury, Bureau of Internal Revenue, *Bulletin "F" (Revised January 1942)—Income Tax, Depreciation, and Obsolescence, Estimated Useful Lives and Depreciation Rates* (Washington, DC: U.S. Government Printing Office, 1942).

Table C.—Service Lives Used to Derive BEA Estimates of Fixed Private Capital, by Type of Asset and Industry

Type of asset and industry	Years		Explanation code ¹	Type of asset and industry	Years		Explanation code ¹	Type of asset and industry	Years		Explanation code ¹
	Revised estimates	Previous estimates			Revised estimates	Previous estimates			Revised estimates	Previous estimates	
Nonresidential equipment				Metalworking machinery; special industry machinery, n.e.c.; general industrial, including materials handling, equipment;²				Nonresidential structures			
Household furniture and fixtures.....	13	15	A	Nonmanufacturing industries.....	16	15	A	Industrial buildings.....	31	27	C
Other furniture.....	14	15	A	Manufacturing industries.....				Mobile offices.....	16	38	C
Fabricated metal products.....	18	18	A	Durable goods.....				Office buildings.....	35	36	C
Steam engines and turbines.....	32	21	A	Lumber and wood products.....	12	15	A	Commercial warehouses.....	40	36	C
Internal combustion engines.....	8	21	A	Furniture and fixtures.....	14	15	A	Other commercial buildings.....	34	36	C
Farm tractors.....	8	8	A	Stone, clay, and glass products.....	15	15	A	Religious buildings.....	48	48	D
Construction tractors.....	8	8	A	Primary metal industries.....	27	15	A	Educational buildings.....	48	48	D
Agricultural machinery, except tractors.....	14	17	A	Fabricated metal products.....	24	15	A	Hospital and institutional buildings.....	45	48	D
Construction machinery, except tractors.....	10	8	A	Machinery, except electrical.....	23	15	A	Hotels and motels.....	32	48	C
Mining and oilfield machinery.....	51	10	A	Electric and electronic equipment.....	14	15	A	Amusement and recreational buildings.....	30	31	C
Metalworking machinery (see below).....				Motor vehicles and equipment.....	14	15	A	All other nonfarm buildings ³	38	31	C
Special industry machinery, n.e.c. (see below).....				Other transportation equipment.....	17	15	A	Railroads.....	51	51	C
General industrial, including materials handling, equipment (see below).....				Instruments and related products.....	14	25	A	Telephone and telegraph.....	40	27	C
Office, computing, and accounting machinery.....	8	8	A	Miscellaneous manufacturing industries.....	17	15	A	Electric light and power.....	40	28	C
Service industry machinery:				Nonfarmable goods.....				Gas.....	40	28	C
Wholesale trade, retail trade.....	10	10	A	Food and kindred products.....	20	15	A	Local transit.....	38	28	C
Other industries.....	11	10	A	Tobacco manufactures.....	21	15	A	Petroleum pipelines.....	40	28	C
Electrical transmission, distribution, and industrial apparatus.....	33	14	A	Textile mill products.....	19	15	A	Farm buildings.....	38	38	C
Communication equipment:				Apparel and other textile products.....	15	15	A	Mining exploration, shafts, and wells.....	14	16	D
Business services.....	11	14	A	Paper and allied products.....	15	15	A	Other ⁴	40	31	C
Other industries.....	15	14	A	Printing and publishing.....	15	15	A				
Household appliances.....	10	14	A	Chemicals and allied products.....	15	15	A	Residential capital			
Other electrical equipment.....	9	14	A	Petroleum and coal products.....	32	15	A	1-to-4-unit structures—new.....	30	30	B
Trucks, buses, and truck trailers:				Rubber and miscellaneous plastic products.....	14	15	A	1-to-4-unit structures—additions and alterations.....	40	40	B
Local and interurban passenger transit.....	14	9	A	Leather and leather products.....	15	15	A	5-or-more-unit structures—new.....	35	55	B
Trucking and warehousing, auto repair, services, and garages.....	10	9	A				5-or-more-unit structures—additions and alterations.....	32	32	B	
Other industries.....	9	9	A				Mobile homes.....	16	16	C	
Autos.....	10	10	F				Other structures ⁵	48	40	C	
Aircraft:							Equipment.....	11	11	A	
Shipping: transportation by air, business services.....	16	16	A								
Other industries.....	12	16	A								
Ships and boats.....	27	22	A								
Railroad equipment.....	30	35	A								
Scientific and engineering instruments.....	18	11	A								
Photographic equipment.....	9	11	A								
Other.....	11	11	A								

1. Explanation codes:

A: New service lives based on industry studies by the Office of Industrial Economics of the Department of the Treasury.

B: New service lives based on BEA studies of book value data compiled by regulatory agencies.

C: Service lives based on modifications of tax service lives in *Bulletin "F"*; revision due to working in greater detail than in previous BEA studies.

D: Service lives based on modifications of tax service lives in *Bulletin "F"*; no change from those used in previous BEA studies.

E: Service lives based on lives used by Raymond W. Goldsmith and Robert E. Lipsey; no change from those used in previous BEA studies.

F: The estimates of stocks of autos do not require an explicit service life assumption. The 10-year life is used only in the calculation of net and values of used autos.

G: Service lives based on trade association data; new life for nonresidential and no change from life used in previous BEA studies for residential.

H: Service lives based on Department of Agriculture data; no change from those used in previous BEA studies.

I: In previous BEA studies, the following service lives were used: metalworking machinery and special industry machinery, n.e.c., 15 years; and general industrial, including materials handling, equipment, 14 years. The average service life for the three types was 15.4 years.

J: Consists of buildings n.e.c., such as passenger terminals, greenhouses, and animal hospitals.

K: Consists of streets, dams and reservoirs, sewer and water facilities, parks, airfields, etc.

L: Consists of dormitories, fraternity and security houses, nurses' homes, etc.

average service life was based on trade association data.⁸

Separate service lives were used for each type of asset in the perpetual inventory calculation—the same asset detail for which annual investment series are estimated in the NIPA's. Where possible, separate lives were used for each industry in which a particular type of asset is purchased, to align service lives more closely with actual experience; however, because of data limitations, industry-specific service lives could be computed only for some types of assets, as indicated in table C.

Each service life by type of asset and industry was held constant over time. Although service lives could vary over time due to business conditions and technological change, the information necessary to estimate such changes in service lives was not available. The book value comparisons given later in this article suggest that the use of constant service lives has not produced any systematic bias in the BEA estimates for the 1959-81 period.

Equipment.—The revised stock estimates for nonresidential and residential equipment were based on service lives obtained from industry studies conducted during the 1970's by the former Office of Industrial Economics (OIE) of the Treasury Department.⁹ The OIE results were particularly useful for manufacturing industries, because they provided separate industry estimates of service lives for production-type equipment—metalworking machinery; special industry machinery, n.e.c.; and general industrial, including materials handling, equipment. The previous BEA stock estimates were based on service lives that were derived by modifying Bulletin F lives. The lives used in the revised BEA estimates represent an improvement over those used in the previous estimates, particularly in that they provide detail for separate industries.

8. Raymond W. Goldsmith and Robert E. Lipsey, *Studies in the National Balance Sheet of the United States* (Princeton: Princeton University Press for National Bureau of Economic Research, 1983), volume 1, chapter 3.

9. The OIE data are unpublished, except those for the textile industry, which are available in U.S. Department of the Treasury, Office of Industrial Economics, *The Textile Industry: A Study of Capital Investment, Technology and Other Factors Affecting Prescribed Capital Recovery Allowances of Textile Machinery*, by Stephen J. Hudak and Paul T. Bohoslav (Washington, DC: U.S. Government Printing Office, 1976).

Nonresidential structures.—For farm structures, the average service life used in both the revised and previous estimates was based on Department of Agriculture data. For telephone and telegraph, electric light and power, gas, and petroleum pipelines structures, the service lives used in the revised estimates were derived by comparing book value data provided by regulatory agencies with perpetual inventory estimates calculated using various alternative service lives. For other types of nonfarm structures, the lives used in the revised estimates were derived by modifying Bulletin F lives, as follows. Because

the NIPA investment flows for nonresidential structures include additions and alterations to existing structures as well as new structures, the Bulletin F lives, which apply only to new structures, were shortened 20 percent for manufacturing structures and 7 percent for nonfarm nonmanufacturing structures. Next, the lives were shortened another 15 percent to account for the fact that actual service lives for nonresidential structures were probably shorter than Bulletin F lives. In the previous estimates, the lives for all types of nonfarm structures were derived by modifying Bulletin F lives, as described above.

Table D.—Modified Winfrey S-3 Retirement Patterns

Percent of average service life	Cumulative percent of original expenditures discarded
Nonresidential capital (except autos), residential equipment	
Less than 45	0
45	1.2
50	2.4
55	4.1
60	6.5
65	9.7
70	13.7
75	18.7
80	24.6
85	31.3
90	38.4
95	45.1
100	53.9
105	61.6
110	68.8
115	75.4
120	81.3
125	86.8
130	90.3
135	93.5
140	96.9
145	97.6
150	98.8
155	100
More than 165	100
Residential structures	
Less than 5	0
5	.1
10	.3
15	.6
20	.7
25	1.0
30	1.3
35	1.7
40	2.1
45	2.7
50	3.6
55	5.0
60	7.3
65	10.2
70	14.1
75	18.0
80	24.6
85	31.3
90	38.4
95	45.1
100	53.9
105	61.6
110	68.8
115	75.4
120	81.3
125	86.8
130	90.3
135	93.5
140	96.9
145	97.6
150	98.8
155	100
160	100
165	100
170	100
175	100
180	100
185	100
190	100
195	100
More than 195	100

Retirement patterns

Except for autos, the service lives in table C are averages; therefore, to account for the retirement of assets at different ages, patterns were calculated based on modifications of the Winfrey S-3 curve, a bell-shaped distribution centered on the average life.¹⁰ For nonresidential capital and residential equipment, retirements start at 45 percent and end at 155 percent of the average life. For residential structures, retirements start at 5 percent and end at 195 percent of the average life (table D). The retirement patterns used in both the revised and the previous estimates were the same.

Obsolescence

The service lives used to derive the revised and previous estimates were designed to take account of expected average obsolescence over time, and the retirement patterns were designed to take into account normal deviations around the average life. However, the patterns do not take account of "unexpected" obsolescence—that is, obsolescence due to unforeseen events that may have substantially altered the time pattern of the loss of the asset's productive services. Some analysts have argued, for example, that government pollution abatement and safety regulations, sudden increases in energy prices, and increased foreign competition since the early 1970's have rendered certain capital assets obsolete before the end

10. Robley Winfrey, *Statistical Analysis of Industrial Property Retirement* (Ames: Iowa Engineering Experiment Station Bulletin 125, December 11, 1935).

Table E.—Comparison of BEA Estimates of Gross Stocks of Fixed Private Capital in Historical-Cost Valuation and IRS Estimates of Gross Book Value of Depreciable Assets, Selected Years, 1959-81

(Ratio of BEA estimates to IRS estimates)

	1959	1961	1963	1965	1967	1969	1971	1973	1975	1977	1978	1979	1980	1981
All industries, total	0.98	0.98	0.99	0.99	0.99	0.99	1.02	1.01	1.00	n.a.	0.99	n.a.	n.a.	n.a.
Corporations	.95	.96	.97	.97	.97	.96	.96	.99	.99	.98	.99	1.01	.98	.96
Sole proprietorships and partnerships	1.08	1.08	1.07	1.06	1.11	1.11	1.13	1.09	1.03	n.a.	1.02	n.a.	n.a.	n.a.

Note.—Ratios are for estimates as of the end of the year. BEA and IRS estimates were adjusted for conceptual differences, as described in the text.
n.a. Not available.

of their normal service lives. In situations where such unexpected obsolescence did occur and assets were retired before the end of their normal service lives, it would be desirable to reflect these earlier-than-normal retirements in the stock estimates.

In BEA stock estimates, adjustments were not made for such unexpected obsolescence because the necessary data were not available. In the case of assets rendered obsolete by government pollution abatement and safety regulations and by increased energy costs, it is possible that many of these assets would already have been near the end of their normal lives when they were retired, and that any adjustments to remove them from the stock estimates would be small. In the case of plant closings due to foreign competition, it is possible that these plants may reopen in the future, although not necessarily producing the same products. Because these plants still represent productive capital, they should continue to be included in the stock estimates until they are demolished or until it is certain that they will never reopen in any capacity.

Valuation and price indexes

The stock estimates are valued in three different ways—at historical cost, at constant cost, and at current cost. In historical-cost valuation, each asset in the gross stock is valued at its original acquisition price. Constant-cost estimates—referred to in tables 3, 4, 7, and 8 as constant-dollar estimates—value each asset at the prices of 1972, the prices used for constant-dollar GNP. Thus, the constant-cost stock for a particular industry is an estimate of the quantity of fixed capital owned by that industry valued in 1972 prices. The constant-dollar investment flows used to derive these estimates were obtained by dividing the current-dollar industry invest-

ment flows by price indexes, separately for each type of asset.

Current-cost estimates—referred to in tables 1, 2, 5, and 6 as current-dollar estimates—value each asset at any specific period at the prices of that period. For example, the year-end 1947 stock estimate shows the items that were in the stock at year-end 1947 expressed at the prices that would have been paid for them at year-end 1947 if they had been produced at year-end 1947. Current-cost stock estimates were calculated by applying price indexes to the constant-cost stock estimates.

The price indexes used to derive the estimates of constant-cost and current-cost stocks were the same as those used to derive constant-dollar fixed investment in the NIPA's.¹¹ Price indexes for structures were based on various construction price and cost indexes, and those for equipment were based on Producer Price Indexes published by the Bureau of Labor Statistics (BLS).¹²

Autos

Numbers and ages of autos in use were available each year from State registration data tabulated by R. L. Polk and Company. The procedure for deriving estimates of the stocks of autos owned by private business took advantage of the availability of this information. As a result, it was not necessary to assume an estimated service life or retirement pattern for autos or to make explicit adjustments for sales of used autos from one type of owner to another.

11. For investment in electric light and power structures, the NIPA price indexes were modified in timing to reflect price changes in the value of completed plant, because the NIPA investment data were modified, as discussed earlier.

12. The principal price indexes used for structures are described in "Revised Deflators for New Construction, 1947-73," Survey 54 (August 1974, Part 1:18-27). Those for equipment are described in Irving Rottenberg and Gerald Donahoe, "Improved Deflation of Producers' Durable Equipment," Survey 55 (July 1975):20-23.

The first step in deriving estimates of stocks of autos by industry involved the calculation of the total stock of autos in use, regardless of ownership. This stock was calculated as follows: (a) The number of new autos entering the stock each year was estimated from trade association data; (b) survival rates were obtained from annual Polk tabulations for each year of original registration; and (c) these survival rates were applied to the new autos series to derive annual estimates of the total stock of autos in use by year of original registration.

Second, the total stock of autos was separated into stocks of consumer and business autos, based on Polk tabulations of registrations by businesses and by individuals and on BLS and Census Bureau data on autos owned by individuals but used wholly or partly for business purposes.¹³ Autos owned by businesses were assigned to the business stock, and autos owned by individuals that were used exclusively for personal purposes were assigned to the consumer stock. Autos owned by individuals that were used wholly or partly for business purposes were allocated between consumer and business usage of these autos; the portion of these autos allocated to business stocks provided the estimates of employee-owned autos discussed in "Investment controls by industry."

Third, the average unit value for business autos in each year of original registration was derived from BLS data and then deflated by the implicit price deflator for the new autos component of producers' durable equipment to obtain the average unit value

13. The data on business usage of household-owned autos were derived from U.S. Department of Labor, Bureau of Labor Statistics, *Survey of Consumer Expenditures* (Washington, DC: U.S. Government Printing Office, 1984); U.S. Department of Commerce, Bureau of the Census, *Consumer Buying Indicators, 1971* (Washington, DC: U.S. Government Printing Office, 1972); and unpublished Census Bureau survey data for 1973-74.

in 1972 prices. The annual constant-cost gross stock of business autos was obtained by multiplying the number of business autos in each year of original registration by the corresponding deflated business unit value.

Finally, total business stocks of autos were distributed by industry using data from BEA's capital flow tables adjusted to the NIPA industry classification and to an ownership basis.

Depreciation and net stock

Assets are carried in the gross stock at their undepreciated values during the entire time they remain in the stock. The net stock estimates were derived by subtracting accumulated depreciation estimates from these values. The depreciation estimates were derived using the straight-line formula, which assumes equal dollar depreciation each year over the life of the asset.¹⁴

Capital consumption allowances in the NIPA's.—The estimates of capital consumption—capital consumption allowances with capital consumption adjustment (CCA with CCAdj)—now used in the NIPA's are equal to the current-cost depreciation estimates associated with BEA's previous capital stock estimates plus accidental damage to fixed capital. The estimates of depreciation associated with the revised and updated stock estimates to be published in 1986 will provide the depreciation estimates at the all-industry level for the CCA with CCAdj for the comprehensive revision of the NIPA's scheduled for publication at the end of 1985. The revised industry estimates cannot be used to derive industry estimates of CCAdj, the difference between capital consumption estimates based on tax returns and those based on the current-cost depreciation estimates from the stock calculations, because the tax-return-based NIPA estimates of CCA are on a company basis and the depreciation estimates associated with the revised stock estimates are on an establishment basis. Research to de-

velop company-based estimates of CCA with CCAdj by industry is planned.

Comparisons with IRS and Census Book Value Estimates

To provide checks on the validity of the combination of the investment flows, service lives, retirement patterns, and legal-form allocations used to derive the revised BEA estimates, comparisons were made between the revised estimates of gross stocks in historical-cost valuation and two sets of independently derived estimates—one based on IRS book value estimates and the other on similar data from the Census Bureau.¹⁵

Comparisons with IRS estimates at the all-industry level

Table E shows ratios of the revised BEA estimates of gross stocks of fixed

14. The revised BEA stock estimates in historical-cost valuation, which are not shown in this article, are available on the computer tape mentioned earlier.

Table E.—Comparison of BEA Estimates of Gross Stocks of Fixed Private Capital in Historical-Cost Valuation and Census Estimates of Gross Book Value of Depreciable Assets, by Industry, 1977

Industry	Billions of dollars		Ratio of BEA to census estimates
	BEA estimates	Census estimates	
Total of all census-covered industries.....	\$76.6	\$68.9	1.01
Mineral.....	107.8	110.2	.98
Metal mining.....	9.8	10.0	.98
Coal mining.....	10.4	13.8	.75
Oil and gas extraction.....	80.9	78.7	1.03
Nonmetallic minerals, except fuels.....	6.7	7.8	.87
Construction.....	43.4	42.8	1.01
Manufacturing.....	458.5	469.7	.93
Durable goods.....	223.7	244.0	.96
Lumber and wood products.....	11.9	12.8	.93
Furniture and fixtures.....	9.6	4.2	.86
Stone, clay, and glass products.....	18.4	21.0	.88
Primary metal industries.....	54.6	59.3	.92
Fabricated metal products.....	26.7	27.1	.95
Machinery, except electrical.....	27.1	38.2	.71
Electric and electronic equipment.....	27.3	27.3	1.00
Transportation equipment.....	49.8	1.06	
Instruments and related products.....	8.1	9.1	.89
Miscellaneous manufacturing industries.....	4.6	4.6	1.02
Nondurable goods.....	204.7	225.7	.91
Food and kindred products.....	48.2	49.7	.97
Tobacco manufactures.....	2.0	2.0	.99
Textile mill products.....	14.1	15.8	.91
Apparel and other textile products.....	4.8	4.7	.98
Paper and allied products.....	27.3	32.2	.85
Printing and publishing.....	14.2	16.1	.88
Chemicals and allied products.....	81.2	69.2	.89
Petroleum and coal products.....	25.9	27.8	.93
Rubber and miscellaneous plastic products.....	14.0	16.6	.85
Leather and leather products.....	1.1	1.2	.94
Wholesale trade.....	68.4	64.8	1.06
Retail trade.....	106.5	97.2	1.09
Selected census-covered services.....	113.9	85.4	1.32
Hotels and other lodging places.....	23.6	24.1	.97
Personal services.....	10.2	8.7	1.17
Business services.....	32.6	26.0	1.25
Auto repair, services, and garages.....	26.1	13.0	2.01
Miscellaneous repair services.....	4.0	2.7	1.52
Motion pictures.....	4.3	3.5	1.21
Amusement and recreation services.....	12.2	12.8	.95

NOTE.—Estimates are as of the end of the year. The census estimates were adjusted for conceptual differences with the BEA estimates, as described in the text.

14. The rationale for using the straight-line formula is discussed in Allen H. Young and John C. Musgrave, "Estimation of Capital Stock in the United States," in Dan Usher, ed., *The Measurement of Capital*, Conference on Research in Income and Wealth: Studies in Income and Wealth, vol. 46 (Chicago: University of Chicago Press for National Bureau of Economic Research, 1980).

present owner and were included in the stock of the present owner. In the BEA estimates, such assets were valued at their cost to the original owner and were included in the stock of the original owner. Because the data used to adjust the BEA estimates related only to sellers, the adjustment could only be made at the all-industry level, separately for corporations and for sole proprietorships and partnerships, and was not possible for instances where an entity changed its legal form of organization without selling its assets (for example, when an unincorporated enterprise incorporated). The inability to make the adjustment in instances where an entity changed its legal form affects the comparisons in table E for corporations and those for sole proprietorships and partnerships but not those for the total of these two legal forms.

As shown in table E, the ratios of BEA to IRS estimates at the all-industry level are very close to 1.00 over the 1959-78 period. This may be viewed as evidence consistent with the validity of the combination of the investment flows, service lives, and retirement patterns used to derive the BEA estimates. For corporations, the ratios in table E are less than 1.00 (i.e., the BEA estimates are smaller than the IRS estimates) for all years shown except 1979, although they are very close to 1.00 beginning in 1971. For sole proprietorships and partnerships, the ratios are greater than 1.00 for all years shown, although they are considerably closer to 1.00 beginning in 1975. This may be viewed as evidence that, over this period, the BEA estimates for corporations are apparently biased downward somewhat, and those for sole proprietorships and partnerships are apparently biased upward somewhat. Two possible sources of this apparent bias in the BEA estimates by legal form of organization are: (1) the legal-form allocations used to derive the BEA estimates were based on less information prior to the 1960's than those starting in the 1960's; and (2) the BEA estimates do not take account of entities changing from one legal form to another. Most of these legal form changes through the early 1970's were from sole proprietorships and partnerships to corporations. Starting in the 1970's, this bias appears to be decreasing, but its future direction and size are difficult to predict.

Comparisons with census book value estimates by industry

Table F shows the revised BEA estimates compared with adjusted estimates of gross book values of depreciable assets for industries included in the economic censuses in 1977. The census estimates were adjusted to make them conceptually comparable with the BEA estimates; the adjustments are similar to those described in "Investment controls by industry."

For the total of all census-covered industries, the BEA and census estimates are within 1 percent of each other. On an individual industry basis, the two sets of estimates are within 5 percent of each other for 14 of the 34 industries; for the other 20, the BEA estimate is lower than the census estimate for 13 industries and higher for 7 industries.

One major reason for the differences between the two sets of estimates for some industries is the treatment of capital leases.¹⁶ These leased assets are included in the industry of the lessor in the BEA estimates and in the industry of the lessee in the census estimates. The impact of this

16. A capital lease, which is generally of longer duration than other types of leases, is defined in Statement of Financial Accounting Standard No. 13, issued by the Financial Accounting Standards Board.

difference is especially apparent in two of the census-covered industries with substantial leasing activity—business services and auto repair, services, and garages.

Given the approximate nature of the adjustments to the census estimates and the capital leasing problem, the closeness of the BEA and Census Bureau estimates at the level of all census-covered industries and for most individual industries may be viewed as evidence consistent with the validity of the combination of the investment flows, service lives, and retirement patterns used to derive the BEA estimates for the census industries.

Comparisons with IRS corporate book value estimates by industry

Table G shows the revised BEA estimates compared with IRS estimates on corporate gross book value of depreciable assets. A similar comparison for sole proprietorships and partnerships was not possible, because IRS did not tabulate estimates of gross book value of depreciable assets for these entities for 1977.

The estimates for this table were adjusted in the same way as those for table E, except in two cases. First, the BEA estimates by industry were not adjusted for valuation of assets sold

Table G.—Comparison of BEA Estimates of Corporate Gross Stock of Fixed Private Capital in Historical-Cost Valuation and IRS Estimates of Corporate Gross Book Value of Depreciable Assets, by Industry, 1977¹

Industry	Billions of dollars		Ratio of BEA to IRS estimates
	BEA estimates	IRS estimates	
All industries, total	1,388.7	1,494.8	93.3
Agriculture, forestry, and fisheries	16.4	16.3	1.00
Mining	92.8	125.5	.73
Construction	31.5	33.1	.95
Manufacturing	429.2	488.9	.86
Durable goods	338.0	380.7	.81
Non-durable goods	90.2	308.3	.97
Transportation and public utilities	479.4	473.1	1.01
Transportation	150.6	179.5	1.10
Communications	147.8	156.9	1.06
Electric, gas, and sanitary services	281.0	216.7	.98
Wholesale trade	62.2	60.1	1.04
Retail trade	75.9	84.3	.90
Finance, insurance, and real estate	108.5	136.0	.80
Services	32.9	76.9	1.21
Admitted:			
Census-covered industries ²	764.5	852.3	.90
Selected services ³	72.9	60.4	1.21
Other industries ⁴	824.2	642.5	.97

1. Estimates are as of the end of the year.
 2. The all-industry total for the IRS estimates includes, and the industry detail excludes, \$0.6 billion of assets classified as "nature of business not allocable."
 3. The all-industry ratio differs from that given in table E because of different adjustments applied to the BEA and IRS estimates in the 2 sets of comparisons, as explained in the text.
 4. Consists of mining; construction; manufacturing; wholesale trade; retail trade; and the services industries shown in table F.
 5. Consists of the services industries shown in table F.
 6. Consists of agriculture, forestry, and fisheries; transportation and public utilities; finance, insurance, and real estate; and health, legal, educational, and other services.

secondhand, because the necessary data were not available. Thus, the all-industry ratio in table G differs from that for corporations in table E, and a number of the industry comparisons in table G are affected by the inability to adjust for this difference in valuation methods. Second, IRS estimates for many industries could not be fully adjusted from the company basis to the establishment basis required for comparison with the BEA estimates. The partial company-establishment adjustment affected industries as follows: (1) Assets of integrated petroleum companies were reclassi-

fied primarily from the manufacturing of petroleum and coal products industry to mining, chemical manufacturing, transportation, retail trade, and certain other industries; (2) assets on which depletion allowances were claimed on tax returns were reclassified from the industry claiming the depletion allowance to the mining and forestry industries; (3) assets in manufacturers' sales branches were reclassified from manufacturing industries to the wholesale trade industry.

As shown in the addenda to table G, the BEA and IRS estimates for the

total of all industries not covered by the 1977 economic censuses are within 3 percent of each other. This closeness of fit, together with that shown in table F between the BEA and census estimates for the total of all census-covered industries, provides further evidence consistent with the validity of the combination of the investment flows, service lives, and retirement patterns used to derive the BEA estimates. The ratios in table G by industry show considerable variation, largely due to the valuation and company-establishment classification problems discussed above.

Table 1.—Current-Dollar Gross Stock of Fixed Private Capital,

(Billions)

Line		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	Fixed private capital.....	687.2	723.9	735.0	818.7	892.1	938.2	974.4	1,015.7	1,091.3	1,177.7	1,231.3	1,275.3	1,324.9	1,362.6	1,402.8
2	Nonresidential.....	318.2	350.5	362.5	399.9	438.9	462.3	493.3	591.4	644.3	682.5	739.8	805.4	889.7	977.3	1,052.5
3	Agriculture, forestry, and fisheries.....	34.3	28.3	30.5	32.6	35.6	41.3	43.7	44.0	47.9	49.6	51.2	52.4	53.7	54.3	55.9
4	Farms.....	23.2	27.0	29.1	31.2	34.8	38.5	40.9	42.1	44.9	47.3	49.6	49.8	50.8	51.1	51.9
5	Agricultural services, forestry, and fisheries.....	1.1	1.3	1.3	1.4	1.8	1.8	1.8	1.9	2.1	2.4	2.6	2.6	2.9	3.0	3.1
6	Mining.....	18.9	29.0	21.1	23.4	26.1	28.2	30.8	31.7	35.6	40.2	42.6	44.4	47.4	48.1	50.9
7	Metal mining.....	1.9	1.9	1.8	1.9	2.1	2.3	2.3	2.3	2.5	2.8	2.9	2.9	3.0	3.1	3.2
8	Coal mining.....	1.9	2.1	2.0	2.2	2.3	2.3	2.3	2.3	2.2	2.4	2.4	2.4	2.3	2.3	2.4
9	Oil and gas extraction.....	14.8	16.0	16.3	19.2	20.5	22.3	23.9	25.6	28.1	32.2	35.4	37.4	40.1	40.8	42.4
10	Nonmetallic minerals, except fuels.....	.9	1.1	1.1	1.3	1.4	1.5	1.6	1.6	1.7	1.8	2.0	2.0	2.0	2.0	2.0
11	Construction.....	4.6	5.8	6.3	7.5	8.8	9.4	10.0	10.5	11.5	12.6	13.5	13.9	14.3	14.6	14.9
12	Manufacturing.....	68.7	76.9	78.8	84.9	97.3	103.6	109.8	115.0	123.7	129.0	138.5	146.0	155.0	160.3	169.7
13	Durable goods.....	34.9	34.6	35.0	39.7	44.7	48.7	51.7	54.2	60.2	70.1	78.4	79.0	82.7	85.8	88.4
14	Lumber and wood products.....	1.5	1.8	1.9	2.1	2.4	2.5	2.6	2.8	3.1	3.7	3.7	3.8	3.9	4.1	4.1
15	Furniture and fixtures.....	.7	.7	.7	.8	.8	.9	.9	.9	1.0	1.1	1.2	1.2	1.2	1.2	1.2
16	Stone, clay, and glass products.....	2.6	2.8	2.8	3.2	3.5	3.8	4.0	4.2	4.6	5.0	5.1	5.1	5.1	5.1	5.1
17	Primary metal industries.....	8.6	10.5	10.5	11.4	13.0	14.4	15.1	15.5	16.9	18.0	21.7	22.7	23.4	24.3	24.9
18	Fabricated metal products.....	2.8	3.1	3.2	3.6	4.3	4.7	5.0	5.3	6.1	7.1	7.7	8.0	8.4	8.8	9.1
19	Machinery, except electrical.....	4.1	4.7	4.9	5.4	6.5	7.1	7.7	8.2	9.1	10.5	11.4	11.8	12.4	12.9	13.3
20	Electric and electronic equipment.....	2.6	2.9	3.0	3.3	3.7	4.0	4.3	4.5	4.9	5.7	6.1	6.3	6.8	7.0	7.2
21	Motor vehicles and equipment.....	3.0	3.4	3.5	3.9	4.8	5.3	5.8	6.4	7.3	8.0	9.5	9.8	10.5	10.9	11.2
22	Other transportation equipment.....	.6	.7	.7	.8	.9	1.0	1.1	1.1	1.3	1.4	1.6	1.6	1.8	1.8	1.9
23	Instruments and related products.....	.8	.8	.9	.9	1.1	1.2	1.3	1.4	1.5	1.7	1.7	1.8	1.8	1.8	1.9
24	Miscellaneous manufacturing industries.....	.8	.8	.9	.9	1.1	1.2	1.3	1.4	1.5	1.7	1.7	1.8	1.8	1.8	1.9
25	Nondurable goods.....	37.8	42.2	41.5	48.3	52.5	55.9	57.1	58.7	63.4	69.9	74.1	75.9	77.8	79.3	81.3
26	Food and kindred products.....	12.7	13.9	14.2	15.5	16.5	16.8	16.9	16.9	17.9	19.1	19.7	19.9	20.2	20.3	20.5
27	Tobacco manufactures.....	.4	.5	.5	.5	.5	.5	.5	.5	.5	.6	.6	.6	.6	.6	.6
28	Textile mill products.....	6.0	6.5	6.7	6.2	6.7	6.7	6.7	6.8	6.9	7.3	7.5	7.3	7.2	7.2	7.2
29	Apparel and other textile products.....	.9	.9	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2
30	Paper and allied products.....	8.7	4.2	4.4	4.9	5.4	5.7	6.1	6.4	7.1	8.9	9.2	9.6	10.0	10.3	10.6
31	Printing and publishing.....	1.8	2.1	2.3	2.4	2.8	2.9	3.0	3.1	3.4	3.8	4.1	4.3	4.6	4.8	5.0
32	Chemical and allied products.....	7.1	7.9	8.3	9.3	10.3	11.4	12.2	12.8	14.0	15.7	16.9	17.6	18.2	18.7	19.4
33	Petroleum and coal products.....	4.7	5.4	5.8	6.2	6.9	7.5	8.2	8.7	9.6	10.8	11.6	11.9	12.1	12.2	12.5
34	Rubber and miscellaneous plastic products.....	1.1	1.3	1.3	1.4	1.7	1.8	1.9	2.0	2.3	2.8	2.8	2.9	3.1	3.3	3.5
35	Leather and leather products.....	.5	.5	.5	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6
36	Transportation and public utilities.....	119.1	139.9	135.5	146.3	167.0	185.4	173.3	178.8	190.6	209.9	229.7	233.0	249.7	246.7	249.4
37	Transportation.....	76.7	81.6	82.5	86.3	102.2	122.6	94.1	94.0	97.2	105.6	107.4	109.0	109.3	109.6	109.3
38	Railroad transportation.....	51.8	64.9	64.8	66.2	82.3	98.6	69.7	69.2	69.5	69.4	65.1	66.3	65.5	64.1	62.9
39	Local and interurban passenger transit.....	7.1	7.6	7.7	7.8	7.8	7.7	7.6	7.8	7.4	7.7	7.8	7.0	6.8	6.5	6.2
40	Trucking and warehousing.....	4.8	5.6	6.9	8.7	7.7	8.2	8.2	8.4	9.2	10.3	10.9	11.3	11.6	11.8	12.3
41	Water transportation.....	5.6	6.9	6.9	8.2	6.4	6.7	7.3	7.4	7.4	8.2	8.7	8.9	9.0	9.1	9.3
42	Transportation by air.....	1.0	1.1	1.2	1.4	1.5	1.7	1.9	2.1	2.3	2.8	3.2	3.7	4.4	4.9	5.6
43	Pipelines, except natural gas.....	4.5	5.0	5.3	5.6	5.8	6.1	6.4	6.5	6.9	7.5	7.8	7.9	7.9	7.9	7.7
44	Transportation services.....	1.9	2.0	2.2	2.4	2.7	2.9	3.0	3.0	3.2	3.6	3.8	3.9	4.0	4.3	4.4
45	Communication.....	12.4	14.3	15.6	17.5	19.4	20.9	22.5	24.2	26.6	29.9	32.4	34.2	36.8	39.5	41.6
46	Telephone and telegraph.....	11.6	13.4	14.7	16.8	18.3	19.7	21.4	22.9	25.3	28.4	30.7	32.5	35.0	37.5	39.6
47	Radio and television broadcasting.....	.8	.9	.9	1.0	1.1	1.1	1.2	1.2	1.3	1.5	1.7	1.8	1.9	2.0	2.2
48	Electric, gas, and sanitary services.....	30.9	34.0	37.4	42.8	47.4	51.7	58.5	60.4	68.8	75.4	80.9	88.6	94.6	97.5	99.3
49	Electric services.....	17.6	19.9	22.3	25.9	29.0	31.9	35.5	36.5	42.8	49.2	54.4	58.5	61.7	63.8	64.8
50	Gas services.....	9.8	11.0	12.1	13.7	15.2	16.5	17.9	18.7	20.7	22.6	25.9	27.6	29.2	30.1	30.9
51	Sanitary services.....	3.0	3.1	3.0	3.1	3.3	3.3	3.3	3.2	3.3	3.6	3.7	3.7	3.8	3.6	3.6
52	Wholesale trade.....	5.0	6.6	6.9	7.7	8.5	8.9	9.3	9.7	10.7	11.9	12.8	13.1	13.7	14.2	14.5
53	Retail trade.....	20.3	22.9	21.2	24.7	26.3	27.1	27.7	28.3	29.5	32.8	33.5	34.4	35.5	36.2	37.3
54	Finance, insurance, and real estate.....	40.4	41.0	43.5	48.3	51.7	55.8	57.6	60.2	66.6	74.0	77.6	80.5	84.9	88.3	91.4
55	Banking.....	4.6	4.4	4.3	4.6	4.9	4.9	4.8	5.0	5.4	5.9	6.1	6.3	6.6	6.7	7.1
56	Credit agencies other than banks.....	1.6	1.6	1.6	1.7	1.9	2.1	2.2	2.3	2.5	2.8	2.9	3.1	3.3	3.5	3.6
57	Security, commodity brokers and services.....	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4
58	Insurance carriers.....	.8	.9	.9	1.0	1.2	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.0	2.1	2.2
59	Insurance agents, brokers, and services.....	.4	.4	.4	.5	.5	.6	.6	.6	.6	.7	.8	.8	.9	1.0	1.1
60	Real estate.....	32.8	35.0	35.5	39.7	44.3	46.2	47.8	50.1	53.6	61.9	65.0	67.6	71.0	73.8	78.0
61	Holding and other investment companies.....	.3	.3	.4	.4	.5	.5	.5	.5	.5	.6	.5	.6	.6	.6	.7
62	Services.....	16.1	17.4	17.5	19.4	21.4	22.5	23.9	25.4	28.3	31.6	34.2	36.5	39.1	41.5	44.2
63	Hotels and other lodging places.....	5.4	5.7	5.8	5.8	6.0	6.0	5.9	6.0	6.2	6.4	6.5	6.8	7.2	7.5	8.2
64	Personal services.....	1.8	1.5	1.5	1.7	1.9	2.0	2.3	2.3	2.5	2.8	3.0	3.2	3.4	3.6	3.9
65	Business services.....	1.7	1.8	1.8	2.0	2.3	2.5	2.7	2.9	3.3	3.9	4.3	4.7	5.1	5.4	5.8
66	Auto repair, services, and garages.....	1.1	1.3	1.4	1.5	1.8	2.2	2.7	3.2	3.8	4.7	5.4	5.9	6.5	7.0	7.4
67	Miscellaneous repair services.....	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8
68	Motion pictures.....	.6	.6	.6	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7
69	Amusement and recreation services.....	3.1	3.3	3.3	3.7	4.0	4.1	4.8	4.4	4.7	5.0	5.2	5.4	5.6	5.8	5.8
70	Other services.....	2.7	2.9	3.1	3.8	4.3	4.5	4.9	5.2	5.8	7.0	7.9	8.6	9.4	10.1	10.9
71	Health services.....	1.1	1.2	1.3	1.5	1.8	2.0	2.2	2.4	2.7	3.2	3.7	4.1	4.5	4.9	5.2
72	Legal services.....	.7	.8	.8	.9	.9	1.0	1.0	1.1	1.1	1.3	1.3	1.4	1.4	1.5	1.5
73	Educational services.....	.2	.2	.2	.3	.3	.3	.4	.4	.5	.5	.6	.6	.6	.7	.7
74	Other ².....	.7	.8	.9	1.0	1.2	1.2	1.4	1.5	1.7	2.0	2.3	2.6	2.9	3.1	3.4
75	Residential.....	238.9	272.5	272.5	419.4	465.1	475.9	491.8	514.3	544.9	675.2	684.7	611.7	634.3	654.8	674.9
76	Farms.....	29.2	31.3	30.7	33.5	35.3	35.8	35.9	36.4	37.2	37.8	37.6	37.5	37.4	37.3	37.2
77	Real estate.....	309.7	341.2	341.8	385.9	419.9	440.1	455.1	477.9	507.9	637.4	647.1	674.2	696.9	717.5	696.6

1. Estimates are as of the end of the year.

2. Consists of social services, membership organizations, and miscellaneous professional services.

Nonresidential and Residential, by Industry, 1947-81¹

(in dollars)

1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	Line
1,461.4	1,492.8	1,574.7	1,665.0	1,804.9	1,928.0	2,128.7	2,348.9	2,562.2	2,797.4	3,061.3	3,328.4	3,597.6	3,868.9	4,137.6	4,404.5	4,671.8	4,938.7	5,205.6	5,472.5	1
784.5	783.9	824.1	892.2	963.7	1,045.0	1,146.7	1,281.1	1,428.6	1,586.6	1,683.9	1,949.3	2,371.9	2,612.9	2,825.6	3,173.5	3,466.2	4,129.3	4,724.5	5,268.4	2
56.1	57.5	52.7	62.0	67.4	72.0	77.3	85.4	95.3	99.5	107.8	121.5	151.8	185.5	192.8	207.5	226.5	279.1	316.9	345.6	3
52.9	54.4	66.1	69.2	63.3	67.6	72.4	86.1	86.2	91.8	100.6	112.5	142.1	155.9	171.9	194.0	224.1	260.7	296.6	321.5	4
8.3	3.4	3.6	3.9	4.1	4.4	4.8	5.3	6.1	6.7	7.2	8.9	9.7	10.5	11.8	18.4	16.5	18.4	21.3	23.8	5
61.9	52.9	55.6	53.5	63.9	66.6	73.7	90.9	86.1	91.4	99.6	109.6	147.3	169.6	180.9	211.8	268.6	297.1	355.6	461.6	6
3.4	8.5	3.7	4.1	4.5	4.9	6.4	6.1	6.8	7.4	8.8	9.4	11.9	13.0	14.4	16.7	19.8	24.2	28.8	32.1	7
2.5	2.5	2.7	2.8	3.9	3.8	3.7	4.1	4.8	4.3	5.9	6.8	6.8	6.8	10.4	12.1	15.4	16.7	22.7	27.3	8
48.9	44.5	46.7	49.9	64.4	67.0	69.8	65.5	70.0	73.6	79.8	87.2	118.7	128.4	144.6	168.5	189.2	235.2	261.7	306.3	9
2.1	2.2	2.4	2.7	3.0	3.4	3.8	4.3	4.7	5.1	5.6	6.3	7.9	8.9	9.8	11.2	12.8	15.0	17.6	20.1	10
14.9	15.6	16.7	17.9	19.8	20.9	23.9	25.4	28.2	30.4	32.5	37.0	47.5	52.9	58.7	65.6	75.3	86.6	96.9	105.4	11
175.8	182.7	192.4	207.5	231.4	252.9	279.4	312.9	348.8	363.1	390.6	469.8	647.1	696.4	699.3	743.9	847.9	969.8	1,110.4	1,231.2	12
92.0	98.7	101.6	110.3	123.8	137.1	151.6	169.8	187.3	209.1	214.1	237.9	286.0	328.6	352.9	399.8	454.9	523.6	608.2	678.0	13
4.2	4.4	4.6	5.9	6.5	6.8	8.4	7.3	7.8	8.6	9.5	10.8	13.8	15.8	16.7	19.1	22.1	25.5	29.1	31.8	14
1.9	1.8	1.4	1.5	1.7	1.9	2.1	2.4	2.8	3.2	3.7	4.7	4.5	5.0	5.0	5.0	5.0	5.0	5.1	5.8	15
3.0	3.8	3.2	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	16
25.4	26.5	28.0	30.2	33.7	37.1	41.0	45.3	49.6	53.5	55.8	60.4	74.1	83.0	89.7	100.0	111.4	125.2	141.5	155.7	17
9.5	9.9	10.8	11.6	13.0	14.5	16.1	18.2	20.1	21.6	23.0	25.7	32.0	36.7	38.8	44.6	50.6	58.6	67.6	75.5	18
13.5	14.3	15.2	16.5	18.6	21.0	23.2	25.8	29.4	30.2	32.2	35.8	44.4	49.3	53.6	61.1	70.5	82.7	96.9	108.7	19
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	20
11.7	12.2	13.1	14.4	16.0	17.3	19.3	20.7	22.3	24.5	26.1	28.4	34.8	38.9	40.1	45.7	51.9	59.9	69.0	78.9	21
5.6	6.9	6.3	6.7	7.3	8.0	10.2	11.7	12.9	13.6	14.8	18.2	19.9	21.6	23.2	26.2	29.9	34.7	40.1	44.5	22
2.9	3.4	2.6	2.8	3.2	3.7	4.2	4.9	5.3	6.1	6.6	7.5	9.5	10.5	11.3	12.9	14.8	17.4	20.1	22.6	23
1.9	2.0	2.1	2.2	2.4	2.6	2.8	3.2	3.6	3.7	4.1	4.6	5.6	6.0	6.7	7.6	8.7	9.9	11.3	12.2	24
83.8	87.9	90.9	97.3	107.8	116.3	127.8	142.5	156.7	168.9	181.5	202.6	252.1	279.8	306.4	346.1	393.0	446.2	507.2	568.2	25
21.1	21.9	22.5	23.6	25.4	27.1	29.0	31.8	34.4	36.7	39.9	43.3	53.0	57.8	62.6	70.2	79.5	89.8	101.5	110.6	26
7.7	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	27
7.2	7.2	7.4	7.7	8.5	9.1	9.7	10.5	11.7	12.6	13.5	15.4	19.2	20.9	22.5	25.0	28.0	30.9	34.2	38.8	28
1.3	1.4	1.5	1.7	1.9	2.2	2.5	2.9	3.3	3.6	4.0	4.6	5.7	6.2	6.7	7.5	8.5	9.5	10.7	11.5	29
11.0	11.5	12.1	13.1	14.7	16.1	17.5	19.4	21.1	22.4	23.7	26.1	32.5	37.0	40.9	46.0	52.1	59.4	68.6	78.1	30
5.2	5.5	5.8	6.3	7.0	7.8	8.7	9.5	10.3	11.3	12.3	14.3	18.2	19.7	21.2	24.1	27.7	31.7	36.2	39.9	31
30.2	31.0	32.3	34.6	37.6	40.2	43.3	46.4	49.4	52.4	55.4	60.4	74.4	80.4	85.4	91.4	101.4	114.4	130.4	148.4	32
12.8	13.1	13.4	14.1	15.1	16.3	17.5	18.7	20.2	21.3	22.3	24.3	29.3	32.3	34.3	38.3	43.3	49.3	56.3	64.3	33
3.8	4.0	4.3	4.8	5.3	5.8	6.3	6.8	7.3	7.8	8.3	10.1	11.1	12.6	13.6	15.6	17.6	20.6	23.6	27.6	34
.5	.5	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	35
265.1	261.2	270.2	284.1	302.8	325.3	354.3	389.2	432.8	476.4	519.8	580.8	715.1	816.9	934.2	1,077.3	1,237.7	1,416.4	1,605.2	1,804.7	36
109.4	108.0	109.0	111.7	116.2	120.8	126.4	133.8	142.8	153.9	166.1	181.7	206.8	231.1	255.4	289.4	333.2	386.8	450.4	523.9	37
61.9	60.9	60.5	60.4	61.2	62.3	63.6	65.8	68.9	73.8	79.4	86.6	94.4	102.8	111.7	121.0	130.8	141.2	152.2	163.8	38
5.8	5.6	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	39
12.8	13.3	13.9	14.6	15.6	16.6	17.6	18.6	19.6	20.6	21.6	22.6	23.6	24.6	25.6	26.6	27.6	28.6	29.6	30.6	40
9.4	9.7	9.9	10.3	10.7	11.1	11.5	11.9	12.3	12.7	13.1	13.5	13.9	14.3	14.7	15.1	15.5	15.9	16.3	16.7	41
6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	42
7.7	7.5	7.5	7.8	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	43
4.4	4.7	4.9	5.4	6.1	6.7	7.4	8.1	8.8	9.5	10.2	11.0	11.8	12.6	13.4	14.2	15.0	15.8	16.6	17.4	44
44.4	48.2	51.4	56.1	62.3	69.9	78.8	87.6	97.2	107.6	118.9	131.2	145.5	160.8	177.1	194.4	212.7	232.0	252.3	273.6	45
42.1	45.6	48.6	53.0	58.8	65.0	72.4	80.8	89.2	98.6	108.9	120.2	133.5	147.8	163.1	179.4	196.7	215.0	234.3	254.6	46
2.3	2.6	2.8	3.1	3.5	3.9	4.3	4.7	5.1	5.5	6.0	6.4	6.9	7.3	7.7	8.2	8.7	9.2	9.7	10.2	47
102.8	104.9	109.7	116.2	124.5	133.5	143.6	154.8	167.2	180.8	195.6	211.7	229.2	248.1	268.4	289.1	310.2	331.7	353.6	375.9	48
67.3	70.3	74.2	78.5	84.7	91.5	98.8	106.6	114.9	123.7	133.0	142.8	153.2	164.1	175.5	187.4	199.8	212.7	226.1	239.9	49
31.4	30.9	31.7	32.3	32.7	33.7	34.7	35.7	36.7	37.7	38.7	39.7	40.7	41.7	42.7	43.7	44.7	45.7	46.7	47.7	50
3.4	3.7	3.8	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	51
15.9	17.4	19.3	21.3	24.1	26.8	30.5	33.2	36.9	40.6	44.3	48.0	51.7	55.4	59.1	62.8	66.5	70.2	73.9	77.6	52
38.4	40.8	42.8	44.8	46.8	48.8	50.8	52.8	54.8	56.8	58.8	60.8	62.8	64.8	66.8	68.8	70.8	72.8	74.8	76.8	53
99.0	105.9	112.5	122.7	135.6	148.4	164.4	181.1	200.1	221.1	243.1	266.1	290.1	315.1	340.1	365.1	390.1	415.1	440.1	465.1	54
7.8	8.1	8.6	9.7	10.9	12.1	13.7	15.2	16.8	18.4	20.0	21.6	23.2	24.8	26.4	28.0	29.6	31.2	32.8	34.4	55
3.8	4.0	4.6	5.1	5.8	6.5	7.2	8.0	8.8	9.6	10.4	11.2	12.0	12.8	13.6	14.4	15.2	16.0	16.8	17.6	56
4.4	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	57
2.3	2.4	2.7	3.0	3.3	3.6	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.1	6.4	6.7	7.0	7.3	7.6	7.9	58
1.2	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	59
82.9	88.0	93.8	101.9	112.4	124.8	139.3	155.8	174.9	196.4	218.5	243.8	271.3	301.3	332.8	365.8	400.3	436.3	473.8	512.8	60
.7	.8	.9	1.0	1.2	1.3	1.5	1.6	1.8	2.1	2.3	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	61
47.1	50.7	54.1	60.1	67.1	74.9	83.8	93.8	105.2	118.1	132.1	147.1	163.1	180.1	198.1	216.1	234.1	253.1	273.1	294.1	62
8.7	9.4	10.4	11.8	13.6	15.6	17.8	20.2	22.8	25.4	28.0	30.6	33.2	35.8	38.4	41.0	43.6	46.2	48.8	51.4	63
4.1																				

Table 2.—Current-Dollar Net Stock of Fixed Private Capital,

(Billions)

Line		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	Fixed private capital.....	244.4	287.5	299.2	463.4	500.7	570.1	596.9	633.9	633.4	689.1	734.8	763.8	796.7	813.2	830.5
2	Nonresidential.....	155.3	176.1	186.1	299.0	312.7	347.7	352.2	373.6	399.9	436.7	469.6	473.2	489.4	491.4	474.0
3	Agriculture, forestry, and fisheries.....	11.8	15.2	17.9	19.8	22.2	23.6	24.2	24.6	26.9	27.1	27.9	29.3	29.9	29.1	29.6
4	Farms.....	11.7	14.5	16.3	19.0	21.2	22.6	23.2	23.5	24.8	25.7	26.1	26.7	27.4	27.5	27.9
5	Agricultural services, forestry, and fisheries.....	.8	.7	.7	.8	.9	1.0	1.0	1.1	1.2	1.4	1.5	1.6	1.6	1.7	1.7
6	Mining.....	9.6	10.7	11.1	12.5	14.2	16.4	16.9	18.2	20.7	23.6	25.9	25.9	27.3	27.4	28.2
7	Metal mining.....	.8	.8	.8	.9	1.0	1.1	1.2	1.2	1.4	1.6	1.9	1.7	1.7	1.8	1.9
8	Coal mining.....	.8	.9	.9	.9	.9	.9	.9	.9	.9	1.0	1.0	1.0	1.1	1.1	1.2
9	Oil and gas extraction.....	7.5	8.4	8.8	10.1	11.8	12.8	14.0	15.2	17.5	20.0	21.2	22.2	23.5	23.6	24.0
10	Nonmetallic minerals, except fuels.....	.6	.6	.6	.7	.7	.8	.8	.8	.9	1.0	1.1	1.1	1.1	1.0	1.1
11	Construction.....	2.7	3.5	3.8	4.5	5.0	5.3	5.4	5.6	5.9	6.3	6.9	7.9	7.3	7.5	7.6
12	Manufacturing.....	37.0	43.1	44.1	48.6	54.5	58.2	62.9	64.4	70.5	80.7	87.5	88.2	91.4	93.8	95.0
13	Durable goods.....	16.7	19.2	19.6	21.4	25.4	28.2	30.3	31.9	35.0	42.2	46.5	47.6	49.1	50.8	51.9
14	Lumber and wood products.....	.9	1.0	1.1	1.2	1.4	1.4	1.5	1.5	1.7	2.0	2.0	2.0	2.1	2.2	2.2
15	Furniture and fixtures.....	.4	.4	.4	.4	.4	.5	.5	.5	.5	.6	.6	.6	.6	.6	.6
16	Stones, clay, and glass products.....	1.8	1.9	1.9	2.1	2.4	2.4	2.5	2.5	2.9	3.6	4.1	4.2	4.4	4.5	4.7
17	Primary metal industries.....	4.5	5.3	5.4	5.9	7.1	8.3	8.9	9.2	10.0	11.9	13.5	14.9	14.3	14.9	15.1
18	Fabricated metal products.....	1.7	1.9	1.9	2.2	2.6	2.9	3.1	3.3	3.8	4.6	4.8	4.9	5.2	5.3	5.4
19	Machinery, except electrical.....	2.7	3.1	3.2	3.4	4.0	4.4	4.8	5.0	5.6	6.4	7.0	7.1	7.4	7.5	7.7
20	Electric and electronic equipment.....	1.5	1.8	1.8	2.0	2.2	2.4	2.6	2.7	3.0	3.6	3.8	3.8	4.0	4.3	4.4
21	Motor vehicles and equipment.....	1.7	2.0	2.0	2.3	2.8	3.1	3.4	3.9	4.5	5.4	5.8	5.8	6.0	6.2	6.2
22	Other transportation equipment.....	.9	1.0	1.0	1.1	1.3	1.5	1.6	1.8	2.1	2.6	3.0	3.0	3.1	3.2	3.3
23	Instruments and related products.....	.4	.4	.4	.5	.6	.6	.6	.6	.7	.9	1.0	1.0	1.1	1.2	1.2
24	Miscellaneous manufacturing industries.....	.4	.5	.6	.6	.7	.7	.8	.8	.9	.9	1.0	1.0	1.0	1.0	1.0
25	Nondurable goods.....	21.1	23.9	24.7	27.1	29.4	30.6	31.7	32.5	34.9	38.5	41.0	41.6	42.2	42.9	44.0
26	Food and kindred products.....	6.7	7.5	7.6	8.3	8.8	8.7	8.7	8.7	9.1	9.7	10.0	10.1	10.3	10.4	10.5
27	Tobacco manufactures.....	.2	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3
28	Textile mill products.....	2.2	2.7	2.8	3.1	3.3	3.3	3.3	3.2	3.8	4.4	4.4	4.3	4.2	4.2	4.2
29	Apparel and other textile products.....	.5	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6
30	Paper and allied products.....	2.3	2.6	2.7	3.0	3.3	3.4	3.6	3.8	4.2	4.9	5.5	5.7	5.9	6.0	6.1
31	Printing and publishing.....	1.1	1.2	1.3	1.5	1.7	1.7	1.7	1.8	1.9	2.1	2.3	2.4	2.5	2.7	2.8
32	Chemicals and allied products.....	4.5	4.9	5.1	5.6	6.3	6.8	7.4	7.7	8.2	9.2	9.8	10.1	10.2	10.5	10.9
33	Petroleum and coal products.....	2.9	3.3	3.4	3.7	4.1	4.5	5.0	5.4	5.9	6.6	7.1	7.2	7.1	7.1	7.2
34	Rubber and miscellaneous plastic products.....	.6	.7	.7	.8	.9	1.0	1.1	1.2	1.3	1.5	1.6	1.6	1.7	1.9	2.0
35	Leather and leather products.....	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
36	Transportation and public utilities.....	54.5	61.5	60.0	72.0	79.9	85.5	91.3	95.9	102.2	114.4	123.6	123.4	124.5	125.2	126.5
37	Transportation.....	31.6	34.6	35.6	37.7	40.1	41.8	42.6	42.6	44.1	47.5	49.9	50.8	51.0	50.9	50.9
38	Railroad transportation.....	19.8	21.3	21.7	22.7	24.0	24.8	25.2	25.0	26.5	27.0	28.2	28.5	28.1	27.4	26.9
39	Local and interurban passenger transit.....	2.8	3.0	3.1	3.1	3.2	3.1	3.0	2.9	3.0	3.1	3.1	3.1	3.1	3.0	2.9
40	Trucking and warehousing.....	2.7	3.2	3.4	3.9	4.5	4.5	4.4	4.4	4.8	5.4	5.7	5.9	6.1	6.3	6.4
41	Water transportation.....	2.7	3.0	3.0	3.1	3.2	3.4	3.8	3.8	3.8	4.3	4.7	4.9	5.0	5.0	5.1
42	Transportation by air.....	.7	.7	.8	.9	.9	1.0	1.1	1.2	1.4	1.7	2.0	2.2	2.3	2.3	2.5
43	Pipelines, except natural gas.....	2.1	2.4	2.6	2.8	3.2	3.4	3.5	3.7	4.0	4.2	4.2	4.2	4.2	4.1	4.0
44	Transportation services.....	1.0	1.0	1.1	1.3	1.5	1.6	1.7	1.7	1.8	2.0	2.1	2.2	2.3	2.4	2.5
45	Communication.....	7.2	8.7	9.5	10.8	12.0	12.9	14.0	15.0	16.5	18.7	20.4	21.4	23.0	24.9	26.4
46	Telephone and telegraph.....	6.8	8.1	9.1	10.3	11.5	12.2	13.0	14.2	15.7	17.8	19.8	20.8	21.8	23.5	24.9
47	Radio and television broadcasting.....	.5	.5	.5	.6	.6	.7	.7	.7	.8	.9	1.1	1.1	1.2	1.3	1.5
48	Electric, gas, and sanitary services.....	15.6	18.2	20.7	24.4	27.8	31.9	34.6	37.4	41.7	48.2	53.8	57.3	60.5	62.4	63.8
49	Electric services.....	9.2	10.9	12.7	15.2	17.4	19.7	22.4	24.7	27.7	32.1	35.7	38.6	40.8	42.2	43.5
50	Gas services.....	5.9	6.9	6.7	7.2	8.3	9.2	10.7	11.2	12.5	14.4	15.8	16.3	16.9	17.5	17.8
51	Sanitary services.....	1.3	1.3	1.3	1.4	1.5	1.6	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.8
52	Wholesale trade.....	3.1	3.7	3.9	4.6	5.9	6.1	6.3	6.6	6.2	6.8	7.3	7.5	7.9	8.3	8.8
53	Retail trade.....	9.1	10.2	10.6	12.1	13.1	12.1	13.7	14.3	15.5	16.9	17.5	18.1	19.1	19.7	20.6
54	Finance, insurance, and real estate.....	19.1	20.6	21.3	24.4	27.7	30.8	30.6	32.5	37.0	41.0	44.4	46.5	49.1	52.6	56.9
55	Banking.....	1.6	1.7	1.7	1.8	2.0	2.0	2.1	2.2	2.3	2.6	2.9	3.2	3.4	3.7	4.2
56	Credit agencies other than banks.....	.5	.7	.7	.8	.9	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.2	2.3
57	Security, commodity brokers and services.....	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.2	.2	.2	.2	.2
58	Insurance carriers.....	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
59	Insurance agents, brokers, and services.....	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
60	Real estate.....	16.0	17.9	17.5	20.5	23.4	24.5	25.8	27.6	31.3	35.8	37.5	39.3	41.9	44.0	47.9
61	Holding and other investment companies.....	.1	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4
62	Services.....	7.2	8.0	8.3	9.6	10.9	12.6	12.9	13.9	15.9	18.1	19.9	21.3	23.0	24.7	25.5
63	Hotels and other lodging places.....	2.2	2.5	2.2	2.4	2.4	2.4	2.5	2.6	2.7	2.9	3.1	3.4	3.6	3.8	4.0
64	Personal services.....	.7	.8	.8	.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.3
65	Business services.....	.7	.8	.8	1.0	1.2	1.4	1.6	1.7	2.0	2.3	2.6	2.8	3.0	3.1	3.3
66	Auto repair, service, and garages.....	.8	.7	.8	1.0	1.2	1.3	1.5	1.6	1.9	2.2	2.5	2.8	3.0	3.1	3.3
67	Miscellaneous repair services.....	.1	.1	.1	.2	.2	.3	.3	.3	.4	.5	.6	.6	.6	.6	.6
68	Motion pictures.....	.3	.3	.3	.3	.4	.4	.4	.4	.5	.6	.6	.6	.6	.7	.7
69	Amusement and recreation services.....	1.3	1.5	1.5	1.7	1.9	1.9	2.0	2.1	2.3	2.6	2.6	2.8	2.9	2.9	3.1
70	Other services.....	1.3	1.5	1.7	2.1	2.5	2.7	3.0	3.3	3.8	4.4	5.0	5.6	6.1	6.5	7.0
71	Health services.....	.6	.7	.7	.9	1.1	1.2	1.4	1.5	1.7	2.1	2.4	2.7	3.0	3.2	3.4
72	Legal services.....	.3	.3	.4	.4	.6	.6	.6	.6	.7	.8	.8	.8	.8	.9	.9
73	Educational services.....	.1	.1	.1	.1	.2	.2	.2	.2	.3	.3	.3	.3	.4	.4	.4
74	Other.....	.3	.4	.5	.6	.7	.8	.8	.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3
75	Residential.....	189.1	211.0	213.1	244.4	267.3	282.4	296.6	316.1	335.5	353.4	365.4	380.1	397.3	411.9	425.3
76	Farms.....	18.7	14.8	14.7	16.1	16.9	17.1	17.1	17.2	17.4	17.8	17.3	17.1	17.0	16.5	16.7
77	Real estate.....	170.3	196.1	198.4	228.4	250.4	265.3	279.5	298.9	318.1	335.6	348.0	363.0	380.3	395.4	408.6

1. Estimates are as of the end of the year.

2. Consists of social services, membership organizations, and miscellaneous professional services.

Nonresidential and Residential, by Industry, 1947-81¹

(in dollars)

1963	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	Line
873.4	842.2	868.6	1,021.4	1,115.4	1,195.3	1,234.4	1,460.3	1,587.1	1,743.8	1,925.4	2,212.5	2,519.7	2,846.4	3,112.8	3,435.9	4,118.2	4,653.4	5,203.0	5,725.8	1
431.2	404.3	417.2	517.5	573.9	625.8	688.3	774.8	859.4	946.8	1,014.9	1,143.5	1,422.0	1,646.6	1,850.9	1,951.7	2,183.7	2,403.3	2,794.4	3,034.7	2
34.5	31.4	33.4	33.3	33.2	41.2	44.2	48.4	52.3	56.2	61.0	68.3	86.3	94.9	105.1	119.4	155.4	181.2	183.7	193.3	3
28.7	29.3	31.9	32.2	35.9	38.3	41.8	45.9	49.3	52.4	56.9	64.7	81.5	89.1	96.4	111.2	129.4	150.4	166.2	179.4	4
1.5	1.3	2.1	2.1	2.3	2.4	2.7	2.9	3.5	3.8	4.1	4.5	5.4	5.8	6.7	7.7	9.0	10.8	12.6	13.9	5
29.4	29.2	30.7	32.9	35.9	37.7	40.1	43.4	46.2	48.4	51.7	57.3	76.1	83.4	94.2	111.9	134.3	161.5	196.4	254.6	6
3.0	2.1	2.3	2.5	2.8	3.1	3.4	3.8	4.2	4.6	4.8	5.4	7.1	7.7	8.4	9.7	11.5	14.1	18.6	30.0	7
1.3	1.4	1.5	1.5	1.6	1.8	2.0	2.2	2.5	2.8	3.1	3.6	4.1	4.5	4.8	5.4	6.2	7.4	8.5	10.0	8
24.6	24.4	25.5	27.2	29.5	30.5	32.2	34.5	36.4	37.7	39.9	43.5	53.1	58.1	64.2	72.7	83.7	104.8	152.3	205.4	9
1.2	1.3	1.5	1.7	2.0	2.2	2.5	2.7	2.9	3.1	3.4	3.7	4.6	5.1	5.8	6.4	7.2	8.4	9.8	11.2	10
7.8	8.5	9.3	10.2	11.2	12.0	12.9	14.6	16.2	17.4	18.6	21.9	28.3	31.4	33.4	37.6	48.7	69.5	95.3	130.5	11
99.1	104.1	109.3	119.8	134.7	151.9	167.3	188.3	204.9	219.3	233.8	258.3	321.1	352.7	389.2	428.0	468.8	559.9	627.1	691.5	12
53.6	55.6	59.2	65.3	75.0	81.0	83.1	104.5	114.4	126.9	138.1	141.4	175.9	191.3	204.1	229.9	248.6	290.3	343.6	383.1	13
2.3	2.4	2.5	2.8	3.1	3.3	3.6	4.1	4.5	4.9	5.5	6.2	8.1	8.8	9.5	10.9	12.5	14.3	16.0	18.8	14
7	7	7	8	9	10	12	13	15	17	20	23	29	30	31	35	41	46	52	55	15
4.9	5.4	6.2	6.7	7.2	7.7	8.0	9.1	9.8	10.1	10.8	11.7	13.6	15.1	16.0	18.0	20.6	23.6	26.5	28.7	16
15.3	15.9	16.7	18.2	20.5	22.3	25.4	28.0	30.4	31.7	32.7	35.1	43.0	48.0	51.6	56.9	62.4	69.4	77.4	84.9	17
8.8	9.3	9.3	9.9	10.9	11.3	12.4	13.1	13.9	14.8	15.6	16.3	19.3	21.4	23.1	26.4	30.0	34.4	39.4	43.9	18
7.9	8.2	8.7	9.6	11.1	12.5	14.2	15.8	17.3	18.1	19.3	21.2	26.6	29.6	31.8	36.3	42.1	48.7	55.2	62.2	19
4.6	4.9	5.2	5.8	7.2	8.4	9.6	11.0	12.4	13.3	14.3	15.3	18.4	22.1	23.4	26.5	30.2	35.5	42.5	49.0	20
6.4	6.7	7.3	8.3	9.4	10.2	11.0	12.2	13.6	14.4	15.2	16.3	19.7	23.8	25.3	29.4	34.4	39.7	45.3	51.6	21
8.5	8.7	9.0	9.2	9.1	9.3	9.7	10.2	10.7	11.2	11.7	12.2	14.9	17.7	18.5	21.9	25.9	30.4	35.3	40.6	22
1.4	1.4	1.5	1.7	2.0	2.3	2.7	3.1	3.6	3.9	4.1	4.7	6.0	6.4	6.8	7.7	8.8	10.6	11.9	13.3	23
1.0	1.1	1.1	1.2	1.4	1.5	1.8	1.9	2.0	2.2	2.4	2.7	3.3	3.5	3.9	4.4	5.0	5.7	6.4	7.2	24
45.5	47.5	49.9	54.5	61.7	67.9	74.7	83.7	92.1	98.8	105.7	117.3	146.1	161.4	176.1	198.2	228.2	251.7	285.5	309.4	25
18.9	11.4	11.9	12.6	13.5	14.9	16.0	17.6	19.2	20.5	22.1	24.3	29.7	32.4	35.1	39.3	44.4	49.9	56.0	60.4	26
4	4	5	5	6	6	7	8	9	9	10	12	15	16	17	19	23	26	30	33	27
3.2	3.3	3.5	3.8	4.5	5.0	5.6	6.2	6.7	7.3	8.0	9.0	11.1	11.8	12.4	13.6	14.9	18.1	17.5	18.4	28
7	7	9	10	12	14	15	18	20	22	25	28	35	37	39	44	49	54	69	63	29
6.9	6.6	6.9	7.6	8.7	9.6	10.4	11.5	12.5	13.6	14.8	16.4	18.4	21.0	23.2	26.1	29.6	33.9	38.5	43.1	30
3.0	3.2	3.4	3.6	4.2	4.7	5.2	5.9	6.6	7.1	7.8	8.7	10.7	11.3	11.9	13.5	15.5	17.2	20.9	23.3	31
11.3	11.8	12.6	14.2	16.5	18.3	20.3	22.7	25.2	27.1	29.5	31.5	40.0	46.7	51.1	56.8	65.7	78.5	82.5	90.7	32
7.3	7.3	7.4	7.8	8.4	9.1	10.1	11.5	12.8	13.9	14.8	15.3	20.3	22.1	24.2	26.9	29.9	34.3	38.8	43.5	33
2.2	2.3	2.5	2.9	3.4	3.9	4.5	5.2	5.8	6.2	6.8	7.9	10.1	10.8	11.5	13.1	14.9	17.1	19.0	20.4	34
3	3	3	4	4	4	5	6	6	6	7	7	9	9	9	10	12	13	15	15	35
144.3	148.1	153.8	162.4	174.9	188.3	200.1	228.2	254.8	279.7	302.2	343.5	419.6	479.7	512.2	561.7	632.5	698.4	784.9	866.4	36
51.2	51.2	52.0	53.9	57.0	59.9	64.5	70.2	78.2	80.3	84.9	94.1	115.5	127.7	139.1	151.1	169.8	194.4	219.1	233.6	37
28.3	25.9	25.9	28.1	28.1	27.1	27.7	28.2	30.6	31.8	32.7	35.0	43.1	47.3	48.6	52.6	59.2	66.3	73.7	75.8	38
2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.7	3.0	3.1	3.4	3.7	4.0	4.4	4.8	39
7.8	7.2	7.5	7.9	8.4	8.5	9.1	10.8	11.4	12.4	13.7	15.5	20.5	21.6	24.6	28.8	33.7	40.2	45.2	48.3	40
5.2	5.2	5.3	5.5	5.7	6.0	6.5	7.0	8.0	8.5	9.5	11.0	13.7	15.3	17.9	19.9	21.5	25.5	29.4	33.4	41
4.1	4.0	4.2	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	42
6.8	6.9	6.9	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	43
2.5	2.7	2.9	3.2	3.5	3.8	4.1	4.5	4.8	5.2	5.6	6.2	7.3	8.9	11.4	14.2	18.0	21.5	25.8	29.9	44
28.2	30.7	32.7	35.9	39.9	44.0	48.8	55.5	65.1	73.7	81.1	91.4	107.3	124.9	139.3	142.5	158.5	180.2	204.5	235.1	45
26.6	22.9	24.8	27.7	31.6	35.3	40.7	46.7	52.3	61.8	68.5	78.6	96.4	101.2	118.1	125.8	149.7	170.2	195.1	232.1	46
1.6	1.8	1.9	2.1	2.4	2.7	3.0	3.4	3.8	4.2	4.6	5.1	6.7	8.1	9.1	7.1	8.8	10.0	11.4	12.9	47
64.9	68.2	68.9	72.7	78.0	85.0	92.9	102.1	118.5	126.7	136.2	157.9	196.9	227.1	245.2	268.0	295.9	331.7	360.4	397.8	48
48.9	45.7	47.9	50.6	54.8	60.1	65.9	73.2	82.0	91.9	104.4	117.6	146.2	171.5	184.2	207.1	238.6	274.3	300.1	310.8	49
19.1	18.6	19.0	20.2	21.6	22.7	24.0	26.2	28.4	30.5	32.2	35.2	45.3	50.1	51.2	54.6	59.5	64.7	71.4	77.3	50
1.8	1.9	1.9	2.0	2.2	2.2	2.4	2.7	3.1	3.4	3.7	4.2	5.2	5.5	5.7	6.4	7.2	8.2	9.9	9.1	51
9.6	10.1	12.1	12.7	13.3	17.8	19.8	22.4	23.4	27.8	30.8	34.5	46.0	49.0	51.5	61.5	71.2	82.0	92.2	104.9	52
21.7	23.1	24.5	27.3	30.0	33.7	37.9	42.1	47.9	51.9	57.1	65.4	82.9	85.9	91.5	104.5	121.9	142.5	162.0	175.8	53
60.7	65.4	70.6	78.3	87.6	98.3	107.4	125.9	141.5	156.3	173.9	201.3	249.3	282.6	298.4	291.9	333.5	385.3	436.9	488.8	54
4.7	5.0	5.6	6.3	7.2	7.9	9.1	10.8	12.2	13.6	15.3	18.6	22.7	24.2	26.2	29.5	34.8	41.6	48.6	54.2	55
2.1	2.6	3.0	3.5	4.0	4.6	5.3	6.2	7.5	8.0	10.1	12.1	15.1	16.7	21.7	25.8	29.4	33.5	39.1	42.1	56
2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	57
1.4	1.6	1.8	2.0	2.3	2.6	2.9	3.4	3.8	4.1	4.5	5.1	6.2	6.4	6.7	7.5	8.6	9.8	11.0	11.8	58
7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	59
50.8	54.4	58.7	64.7	72.1	79.9	87.4	102.0	114.4	128.9	149.3	161.2	195.1	197.4	202.7	232.4	232.9	291.7	323.7	361.9	60
4	5	6	7	8	9	10	13	15	18	21	24	29	31	32	36	41	45	50	54	61
28.6	31.1	34.1	37.6	43.4	46.9	52.3	59.8	64.9	72.4	81.6	94.5	114.2	119.8	135.3	127.2	153.5	175.0	200.5	223.5	62
5.8	6.0	6.8	7.5	8.4	9.1	10.1	11.2	12.5	13.9	15.8	18.0	22.1	22.2	22.6	24.0	27.0	32.2	35.8	39.7	63
2.4	2.5	2.8	3.0	3.4	3.9	4.4	4.9	5.5	6.0	6.5	7.1	8.8	9.4	9.9	10.5	11.7	12.6	13.6	14.6	64
1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.9	3.2	3.5	3.8	4.2	5.0	5.2	5.4	5.8	6.4	7.0	7.6	8.2	65
4.9	5.1	5.																		

Table 3.—Constant-Dollar Gross Stock of Fixed Private Capital.

(Billions of)

Line		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	Fixed private capital	1,201.2	1,256.6	1,273.3	1,422.9	1,479.7	1,516.9	1,561.8	1,615.8	1,671.9	1,737.5	1,782.4	1,891.3	1,888.7	1,943.2	1,977.4
2	Nonresidential	678.6	702.2	720.0	742.9	766.6	799.2	820.4	845.6	874.5	905.9	937.3	988.8	986.2	1,014.9	1,042.9
3	Agriculture, forestry, and fisheries	51.4	45.5	42.5	42.4	44.3	48.9	72.4	74.4	75.3	77.2	71.3	78.8	79.7	88.9	96.5
4	Farms	49.6	43.0	40.8	40.6	42.9	46.8	69.2	71.0	72.7	73.5	78.8	74.4	75.5	75.7	75.0
5	Agricultural services, forestry, and fisheries	2.2	2.5	2.7	2.8	2.9	3.1	3.2	3.9	3.4	3.7	3.9	4.2	4.2	4.4	4.5
6	Mining	38.9	40.3	41.5	43.2	45.9	47.5	50.4	53.4	54.5	59.2	61.5	66.1	68.9	71.3	74.1
7	Metal mining	3.6	3.8	3.7	3.7	3.8	3.9	4.0	4.1	4.2	4.4	4.5	4.6	4.6	4.8	5.0
8	Coal mining	4.2	4.3	4.2	4.2	4.1	4.0	3.9	3.8	3.7	3.9	3.8	3.5	3.4	3.4	3.5
9	Oil and gas extraction	28.7	29.9	29.2	32.9	34.6	37.0	39.8	43.8	46.2	49.5	52.7	56.3	58.0	60.4	62.8
10	Nonmetallic minerals, except fuels	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.7	2.8	2.9	2.9	2.9	2.9	2.9
11	Construction	19.6	12.1	19.1	14.9	16.7	16.8	17.7	18.3	19.1	19.3	19.6	19.7	19.8	20.0	19.5
12	Manufacturing	152.9	159.5	164.3	169.7	174.1	182.9	190.9	197.4	209.9	213.6	223.1	227.9	231.0	237.9	242.6
13	Durable goods	70.4	78.7	75.0	77.0	81.4	85.4	90.7	94.7	99.8	106.7	112.1	115.2	117.9	122.1	125.4
14	Lumber and wood products	8.6	8.8	4.9	4.2	4.5	4.7	4.8	5.0	5.2	5.6	5.6	5.7	5.9	6.1	6.1
15	Furniture and fixtures	1.6	1.6	1.8	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
16	Stone, clay, and glass products	3.9	3.1	3.1	3.2	3.5	3.6	3.7	3.8	3.9	4.2	4.2	4.2	4.2	4.2	4.2
17	Primary metal industries	21.9	22.6	22.6	22.7	23.9	25.7	26.6	27.1	27.8	29.4	31.6	32.6	33.1	34.5	35.3
18	Fabricated metal products	5.5	6.7	7.0	7.4	7.8	8.3	8.8	9.4	10.0	10.8	11.2	11.6	11.9	12.3	12.7
19	Machinery, except electrical	3.4	10.1	14.5	11.0	11.7	12.5	13.4	14.1	14.8	15.7	16.5	17.1	17.5	18.1	18.6
20	Electric and electronic equipment	5.2	5.5	5.7	6.9	6.9	6.7	7.1	7.5	7.8	8.3	8.7	8.9	9.2	9.6	10.0
21	Motor vehicles and equipment	7.1	7.6	7.9	8.3	8.9	9.6	10.3	11.4	12.2	13.3	14.1	14.4	14.9	15.3	15.6
22	Other transportation equipment	4.2	4.8	4.3	4.2	4.5	4.8	5.0	5.2	5.6	6.2	6.5	7.0	7.2	7.4	7.7
23	Instruments and related products	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.8	3.0
24	Miscellaneous manufacturing industries	1.7	1.8	1.8	1.8	2.0	2.2	2.4	2.5	2.5	2.8	2.8	2.8	2.8	2.7	2.7
25	Nondurable goods	82.6	84.8	89.4	91.7	94.7	97.4	100.2	102.8	104.3	107.2	111.1	112.8	113.8	115.8	118.2
26	Food and kindred products	27.4	28.2	28.7	29.2	29.5	29.5	29.6	29.6	29.7	29.7	29.7	29.7	29.7	29.8	30.0
27	Tobacco manufactures	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
28	Textile mill products	11.2	11.9	12.1	12.3	12.5	12.5	12.4	12.1	12.0	11.9	11.7	11.3	11.1	10.9	10.7
29	Apparel and other textile products	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7
30	Paper and allied products	6.1	6.6	6.8	6.9	6.7	10.1	10.5	11.0	11.8	12.4	13.3	13.7	14.1	14.5	14.9
31	Printing and publishing	4.2	4.5	4.8	5.0	5.2	5.4	5.5	5.6	5.8	6.1	6.3	6.5	6.8	7.1	7.3
32	Chemicals and allied products	15.3	18.0	18.5	17.3	18.5	18.8	20.9	21.9	22.4	23.3	24.4	25.2	25.6	26.3	27.4
33	Petroleum and coal products	10.2	11.1	11.6	11.9	12.5	12.8	14.4	15.4	16.0	16.9	17.9	18.3	18.4	18.9	19.1
34	Rubber and miscellaneous plastic products	2.7	2.8	2.9	3.0	3.2	3.4	3.6	3.7	3.8	4.1	4.3	4.4	4.6	4.8	5.1
35	Leather and leather products	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
36	Transportation and public utilities	208.9	265.5	270.9	276.3	281.4	287.4	294.3	299.2	304.4	312.0	320.2	326.1	331.9	339.4	346.2
37	Transportation	165.5	164.3	163.1	161.7	160.8	160.9	160.9	160.9	160.9	160.9	160.9	160.9	160.9	160.9	160.9
38	Railroad transportation	113.9	111.5	110.1	108.2	106.5	105.1	103.5	101.2	98.1	97.4	96.3	95.9	95.6	95.3	95.0
39	Local and interurban passenger transit	14.5	14.1	13.7	13.2	12.7	12.3	11.8	11.4	11.0	10.6	10.2	9.8	9.4	9.0	8.6
40	Trucking and warehousing	8.9	10.5	11.1	11.9	12.7	13.0	13.4	13.8	14.3	14.7	15.1	15.5	15.7	16.2	16.7
41	Water transportation	12.7	12.8	12.2	12.1	12.1	12.2	12.4	12.3	12.1	12.2	12.5	12.7	12.9	13.0	13.0
42	Transportation by air	2.2	2.3	2.4	2.5	2.6	2.9	3.1	3.5	3.7	4.2	4.8	5.1	5.6	6.0	6.5
43	Pipelines, except natural gas	3.1	3.2	3.3	3.3	3.3	3.5	3.7	3.8	3.9	4.1	4.3	4.4	4.6	4.8	5.1
44	Transportation services	4.3	4.1	4.3	4.5	4.8	5.0	5.0	5.1	5.1	5.3	5.3	5.3	5.4	5.5	5.7
45	Communication	25.0	27.6	29.5	31.4	33.1	35.1	37.5	39.7	42.1	45.4	48.6	51.4	53.7	57.3	60.9
46	Telephone and telegraph	23.6	26.0	27.9	29.7	31.3	33.4	35.6	37.7	40.1	43.3	46.3	48.5	51.1	54.4	57.8
47	Radio and television broadcasting	1.4	1.6	1.6	1.7	1.7	1.9	1.9	1.9	2.0	2.2	2.3	2.5	2.6	2.9	3.1
48	Electric, gas, and sanitary services	70.4	73.9	78.3	83.0	87.8	92.3	97.9	102.7	107.3	112.4	117.8	123.2	128.6	136.2	137.6
49	Electric services	46.9	47.7	51.0	54.2	57.2	60.8	64.8	68.7	71.9	75.5	79.4	83.4	87.1	90.7	93.6
50	Gas services	19.3	20.2	21.3	22.9	24.6	25.7	27.3	28.2	29.5	31.1	32.7	34.1	35.7	36.8	38.1
51	Sanitary services	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.7
52	Wholesale trade	19.7	11.4	11.8	12.4	13.0	13.3	13.9	14.6	15.5	16.2	17.0	17.5	18.1	18.2	19.1
53	Retail trade	49.8	41.4	41.7	43.1	43.6	44.4	44.4	45.4	47.1	48.0	48.8	49.7	51.2	52.7	54.1
54	Finance, insurance, and real estate	82.8	84.4	86.2	88.8	91.0	93.3	96.8	100.1	103.9	114.2	119.3	124.0	130.6	136.9	143.8
55	Banking	6.9	6.9	6.7	6.7	6.7	6.5	6.6	6.7	6.1	6.8	6.6	6.9	7.0	7.1	7.1
56	Credit agencies other than banks	2.8	2.9	2.8	3.0	3.0	3.2	3.3	3.5	3.6	3.9	4.1	4.3	4.5	4.7	5.0
57	Security, commodity brokers and services	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6
58	Insurance carriers	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.2	2.3	2.4	2.6	2.7	2.9	3.0	3.1
59	Insurance agents, brokers, and services	.7	.7	.8	.8	.8	.8	.9	.9	.9	.9	.9	.9	.9	.9	.9
60	Real estate	67.6	69.1	70.9	74.2	77.2	79.4	82.6	86.5	91.5	96.2	100.6	104.7	110.2	115.4	121.8
61	Holding and other investment companies	.6	.6	.6	.7	.7	.7	.8	.8	.8	.8	.8	.8	.8	.8	.8
62	Services	39.6	31.3	31.7	32.9	34.6	36.5	37.4	39.6	42.4	45.2	48.1	50.8	54.0	57.5	60.9
63	Hotels and other lodging places	8.7	9.6	9.4	9.2	9.2	9.0	8.9	8.9	8.9	9.0	9.3	9.5	9.9	10.5	11.2
64	Personal services	2.6	2.6	2.7	2.9	3.0	3.1	3.4	3.5	3.6	3.9	4.0	4.3	4.4	4.7	5.0
65	Business services	3.3	3.3	3.3	3.5	3.7	4.0	4.3	4.7	5.2	5.7	6.2	6.6	7.1	7.5	7.9
66	Auto repair, services, and garages	1.9	2.1	2.2	2.4	2.7	3.2	3.9	4.5	5.6	6.2	7.0	7.4	8.1	8.8	9.4
67	Miscellaneous repair services	.7	.7	.7	.8	.8	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9
68	Motion pictures	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.6	1.6	1.6	1.7	1.8
69	Amusement and recreation services	6.1	6.3	6.4	6.6	6.7	6.9	7.1	7.2	7.4	7.6	7.9	7.9	7.9	8.2	8.4
70	Other services	5.2	5.5	5.7	5.8	6.0	6.3	6.7	7.2	7.4	8.2	10.2	11.2	12.3	14.4	15.5
71	Health services	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.1	3.2	3.4	3.6	3.9	4.2
72	Legal services	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.2	2.2
73	Educational services	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9
74	Other ¹	1.4	1.5	1.6	1.7	1.8	2.0	2.1	2.4	2.6	3.0	3.3	3.7	4.0	4.5	5.0
75	Residential	612.4	623.8	625.3	630.0	632.8	635.3	641.3	648.5	656.5	665.1	674.2	683.9	694.3	705.3	716.4
76	Farms	62.9	65.4	63.8	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
77	Real estate	549.5	558.4	561.5	565.6	568.2	570.7	586.7	603.9	621.9	640.9	669.6	689.3	729.7	740.7	751.8

1. Estimates are as of the end of the year.

2. Consists of social services, membership organizations, and miscellaneous professional services.

Nonresidential and Residential, by Industry, 1947-81¹

1972 dollars

1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	Line
2,958.4	2,125.9	2,291.3	2,299.2	2,381.1	2,468.8	2,565.4	2,667.3	2,782.5	2,844.4	2,933.5	3,115.0	3,227.4	3,313.8	3,408.8	3,523.3	3,654.1	3,792.9	3,912.3	4,050.0	4,195.0	4,348.0	4,508.0	4,675.0	4,848.0	5,027.0	5,212.0	5,403.0	5,600.0	5,803.0	6,012.0	6,227.0	6,448.0	6,675.0	1	
1,074.9	1,189.9	1,180.2	1,284.4	1,298.2	1,327.9	1,399.3	1,459.3	1,523.8	1,588.3	1,650.9	1,722.9	1,810.2	1,887.2	1,926.8	1,996.3	2,082.3	2,192.9	2,302.3	2,412.3	2,522.3	2,632.3	2,742.3	2,852.3	2,962.3	3,072.3	3,182.3	3,292.3	3,402.3	3,512.3	3,622.3	3,732.3	3,842.3	3,952.3	2	
91.3	82.5	88.9	96.1	98.7	91.7	94.3	96.9	100.2	109.1	105.8	119.3	114.5	119.5	124.6	129.9	138.8	141.6	145.1	147.5	149.5	151.5	153.5	155.5	157.5	159.5	161.5	163.5	165.5	167.5	169.5	171.5	173.5	175.5	3	
76.7	77.8	78.9	80.9	82.9	84.9	86.9	88.9	90.9	92.9	94.9	96.9	98.9	100.9	102.9	104.9	106.9	108.9	110.9	112.9	114.9	116.9	118.9	120.9	122.9	124.9	126.9	128.9	130.9	132.9	134.9	136.9	138.9	140.9	4	
4.6	4.7	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.8	11.0	11.2	5	
74.7	79.0	82.8	86.6	87.8	88.7	91.2	95.1	94.0	92.6	93.2	94.2	97.5	99.1	100.8	104.0	107.6	112.1	117.1	122.4	127.4	132.4	137.4	142.4	147.4	152.4	157.4	162.4	167.4	172.4	177.4	182.4	187.4	192.4	6	
5.2	5.3	5.4	5.9	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.4	8.8	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3	18.8	19.3	7	
3.5	3.7	3.8	3.9	4.0	4.2	4.4	4.7	4.9	5.2	5.5	5.7	6.2	6.7	7.1	7.6	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	8	
63.0	66.9	69.8	71.6	73.6	74.7	76.8	78.3	79.0	79.5	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	9
3.0	3.1	3.3	3.6	3.8	4.3	4.6	4.8	5.0	5.2	5.5	5.7	6.0	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.2	9.5	9.8	10.1	10.4	10.7	11.0	11.3	11.6	11.9	12.2	10	
80.2	78.9	78.9	78.2	74.5	70.5	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	11	
249.7	254.5	264.0	288.6	299.7	317.1	333.9	349.4	364.3	376.3	389.7	404.2	423.4	438.6	454.8	473.8	494.2	515.4	536.9	558.0	578.0	597.0	615.0	632.0	648.0	664.0	680.0	696.0	712.0	728.0	744.0	760.0	776.0	792.0	12	
139.0	132.2	139.1	147.7	159.1	169.9	179.8	189.2	199.4	208.8	218.0	228.4	239.3	249.6	259.0	268.0	276.0	284.0	292.0	300.0	308.0	316.0	324.0	332.0	340.0	348.0	356.0	364.0	372.0	380.0	388.0	396.0	404.0	412.0	13	
6.2	6.4	6.5	6.9	7.2	7.4	7.7	8.1	8.4	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3	18.8	19.3	19.8	20.3	20.8	14	
1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.7	15	
12.2	12.5	12.9	13.8	14.4	14.7	15.1	15.6	16.1	16.5	17.1	17.5	18.1	18.6	19.0	19.6	20.1	20.6	21.1	21.6	22.1	22.6	23.1	23.6	24.1	24.6	25.1	25.6	26.1	26.6	27.1	27.6	28.1	28.6	16	
85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	17	
15.1	15.6	16.3	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	18
19.1	19.7	20.5	21.8	22.6	23.9	25.7	27.1	28.8	29.7	31.0	32.8	34.1	35.2	36.9	38.6	40.3	42.0	43.7	45.4	47.1	48.8	50.5	52.2	53.9	55.6	57.3	59.0	60.7	62.4	64.1	65.8	67.5	69.2	19	
10.6	11.0	11.6	12.7	13.2	13.8	14.4	15.1	15.8	16.5	17.2	18.0	18.7	19.4	20.1	20.8	21.5	22.2	22.9	23.6	24.3	25.0	25.7	26.4	27.1	27.8	28.5	29.2	29.9	30.6	31.3	32.0	32.7	33.4	20	
14.1	14.7	15.5	16.9	17.8	18.9	20.1	21.4	22.8	24.2	25.6	27.0	28.4	29.8	31.2	32.6	34.0	35.4	36.8	38.2	39.6	41.0	42.4	43.8	45.2	46.6	48.0	49.4	50.8	52.2	53.6	55.0	56.4	57.8	21	
9.0	8.4	8.7	8.2	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	22	
3.2	3.4	3.5	3.8	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.2	6.5	6.9	7.2	7.6	8.0	8.4	8.8	9.2	9.6	10.0	10.4	10.8	11.2	11.6	12.0	12.4	12.8	13.2	13.6	14.0	14.4	14.8	23	
2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	24	
120.7	120.9	127.0	132.8	140.5	147.8	153.7	159.4	166.8	172.5	178.8	184.8	193.2	201.9	209.5	218.0	226.0	234.0	242.0	250.0	258.0	266.0	274.0	282.0	290.0	298.0	306.0	314.0	322.0	330.0	338.0	346.0	354.0	362.0	25	
30.4	30.9	31.5	32.2	33.2	34.1	34.8	35.7	36.7	37.5	38.7	39.5	40.6	41.7	42.9	44.4	45.9	47.3	48.7	50.0	51.3	52.6	53.9	55.2	56.5	57.8	59.1	60.4	61.7	63.0	64.3	65.6	66.9	68.2	26	
1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.9	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	27	
10.5	10.3	10.4	10.6	11.1	11.5	11.7	12.1	12.4	12.8	13.4	14.0	14.6	15.2	15.8	16.4	17.0	17.6	18.2	18.8	19.4	20.0	20.6	21.2	21.8	22.4	23.0	23.6	24.2	24.8	25.4	26.0	26.6	27.2	27.8	28
1.8	2.0	2.2	2.3	2.5	2.7	3.0	3.2	3.4	3.6	4.0	4.2	4.4	4.6	4.8	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8	9.2	9.6	10.0	10.4	10.8	11.2	11.6	12.0	12.4	29	
15.4	15.9	16.5	17.6	18.8	20.7	21.6	23.4	25.4	27.4	29.4	31.4	33.4	35.4	37.4	39.4	41.4	43.4	45.4	47.4	49.4	51.4	53.4	55.4	57.4	59.4	61.4	63.4	65.4	67.4	69.4	71.4	73.4	75.4	30	
7.6	7.9	8.2	8.6	9.0	9.4	9.8	10.4	11.0	11.6	12.2	12.8	13.4	14.0	14.6	15.2	15.8	16.4	17.0	17.6	18.2	18.8	19.4	20.0	20.6	21.2	21.8	22.4	23.0	23.6	24.2	24.8	25.4	26.0	31	
28.1	29.1	30.4	32.7	35.4	37.6	39.8	41.9	44.1	46.3	48.5	50.7	52.9	55.1	57.3	59.5	61.7	63.9	66.1	68.3	70.5	72.7	74.9	77.1	79.3	81.5	83.7	85.9	88.1	90.3	92.5	94.7	96.9	99.1	32	
19.4	19.6	19.7	20.3	20.8	21.5	22.2	22.9	23.6	24.3	25.0	25.7	26.4	27.1	27.8	28.5	29.2	29.9	30.6	31.3	32.0	32.7	33.4	34.1	34.8	35.5	36.2	36.9	37.6	38.3	39.0	39.7	40.4	41.1	33	
8.4	8.6	8.9	9.2	9.5	9.8	10.1	10.4	10.7	11.0	11.3	11.6	11.9	12.2	12.5	12.8	13.1	13.4	13.7	14.0	14.3	14.6	14.9	15.2	15.5	15.8	16.1	16.4	16.7	17.0	17.3	17.6	17.9	18.2	34	
9	9	9	9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	35	
252.9	282.5	371.1	332.8	397.5	412.6	480.0	449.9	497.0	484.9	533.7	527.9	549.5	584.3	582.5	602.1	624.4	651.6	676.7	697.5	716.0	732.0	746.0	758.0	769.0	779.0	789.0	799.0	809.0	819.0	829.0	839.0	849.0	859.0	36	
147.0	145.9	148.9	148.2	160.7	153.0	156.1	159.4	161.2	164.6	166.7	168.7	171.3	173.6	176.1	178.3	182.6	186.6	190.4	194.0	197.4	200.7	203.9	207.0	210.0	212.9	215.7	218.4	221.0	223.5	226.					

Table 4.—Constant-Dollar Net Stock of Fixed Private Capital,

(Billions of

Line		1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	Fixed private capital.....	672.9	711.4	741.5	782.7	828.1	851.3	887.9	922.9	965.3	1,007.8	1,047.0	1,088.2	1,121.4	1,160.0	1,195.7
2	Nonresidential.....	331.4	352.1	368.4	385.9	406.1	423.1	443.0	459.9	480.2	501.9	516.2	539.1	564.6	576.1	594.2
3	Agriculture, forestry, and fisheries.....	24.2	25.8	22.1	24.2	30.4	40.0	41.1	41.8	42.8	42.2	42.1	42.4	43.4	43.5	43.2
4	Farms.....	24.9	25.4	31.6	34.9	46.7	58.1	59.2	59.7	40.2	48.0	38.8	40.1	41.0	41.0	41.8
5	Agricultural services, forestry, and fisheries.....	1.3	1.4	1.5	1.6	1.7	1.9	1.9	1.9	2.1	2.1	2.2	2.4	2.4	2.4	2.5
6	Mining.....	19.3	20.3	21.7	23.9	24.3	26.2	28.3	29.6	29.4	28.3	27.2	28.4	29.6	30.6	31.3
7	Metal mining.....	1.6	1.7	1.7	1.7	1.8	1.9	2.1	2.2	2.3	2.4	2.5	2.6	2.6	2.8	2.9
8	Coal mining.....	1.9	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.8
9	Oil and gas extraction.....	15.1	15.9	18.9	18.2	19.5	21.2	24.3	25.4	27.8	24.9	23.6	24.8	24.9	24.7	25.5
10	Nonmetallic minerals, except fuels.....	1.1	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
11	Construction.....	4.3	1.4	7.9	8.5	9.0	9.4	9.5	9.5	9.8	9.7	8.3	9.9	10.1	10.2	10.2
12	Manufacturing.....	84.4	90.1	92.0	94.0	98.0	104.9	106.4	112.9	115.9	122.7	128.2	130.8	131.6	134.9	137.4
13	Durable goods.....	38.3	40.9	41.5	42.5	46.0	49.7	52.8	55.4	58.2	62.4	69.0	69.1	70.8	72.3	73.7
14	Lumber and wood products.....	2.0	2.2	2.3	2.4	2.6	2.6	2.6	2.7	2.9	3.1	3.1	3.1	3.2	3.3	3.3
15	Furniture and fixtures.....	.8	.9	.8	.8	.8	.8	.8	.8	.8	.9	.9	.9	.9	1.0	1.0
16	Stone, clay, and glass products.....	4.0	4.1	4.1	4.1	4.8	4.4	4.4	4.5	4.9	5.0	5.2	5.2	5.4	5.6	5.6
17	Primary metal industries.....	10.4	11.3	11.5	11.6	12.9	14.6	15.5	15.9	16.3	17.7	19.6	20.2	20.2	21.1	21.4
18	Fabricated metal products.....	8.9	9.1	9.2	9.5	10.8	12.0	12.4	12.8	13.2	14.7	16.7	17.2	17.3	17.5	17.8
19	Machinery, except electrical.....	5.3	5.7	5.8	5.9	7.3	7.3	7.3	7.3	7.7	8.1	9.6	10.2	10.3	10.4	10.8
20	Electric and electronic equipment.....	3.2	3.4	3.5	3.6	3.8	4.0	4.2	4.5	4.7	5.1	5.3	5.4	5.5	5.8	6.2
21	Motor vehicles and equipment.....	4.0	4.4	4.5	4.7	5.1	5.6	6.1	6.8	7.4	8.1	8.6	8.4	8.4	8.6	8.7
22	Other transportation equipment.....	2.8	2.1	2.0	2.0	2.8	2.6	2.8	3.0	3.2	3.8	4.3	4.4	4.5	4.6	4.8
23	Instruments and related products.....	.8	.8	.9	.9	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.9
24	Miscellaneous manufacturing industries.....	.9	1.0	1.0	1.0	1.1	1.3	1.5	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.4
25	Nondurable goods.....	46.2	49.2	50.5	51.4	53.1	54.3	55.6	58.8	57.6	59.3	61.3	61.7	61.7	62.7	64.0
26	Food and kindred products.....	14.5	15.2	15.5	15.6	15.7	15.4	15.3	15.2	15.3	15.1	15.7	15.0	15.1	15.2	15.3
27	Textile mill products.....	.5	.6	.5	.5	.4	.4	.4	.4	.4	.5	.5	.5	.5	.5	.6
28	Apparel and other textile products.....	5.2	5.9	6.1	6.2	6.3	6.1	6.1	5.9	5.7	5.5	5.3	5.0	4.9	4.8	4.7
29	Paper and allied products.....	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.9	.9	.9	.9	.9
30	Printing and publishing.....	6.0	6.3	6.5	6.6	6.6	6.9	6.1	6.4	6.7	7.3	7.9	8.1	8.2	8.3	8.5
31	Chemicals and allied products.....	2.4	2.6	2.8	3.0	3.1	3.1	3.1	3.2	3.3	3.4	3.5	3.7	3.8	4.0	4.2
32	Petroleum and coal products.....	9.7	10.0	10.2	10.4	11.1	12.0	12.6	12.9	13.0	13.5	14.2	14.8	14.4	14.8	15.4
33	Rubber and miscellaneous plastic products.....	6.1	6.8	7.1	7.1	7.4	7.3	8.7	9.4	9.7	10.3	10.9	11.1	10.9	11.0	11.1
34	Leather and leather products.....	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.4	2.4	2.5	2.5	2.7	2.9
35	Miscellaneous manufacturing industries.....	.3	.5	.6	.6	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8
36	Transportation and public utilities.....	118.0	125.3	131.3	136.3	142.4	149.0	154.4	158.4	162.7	169.1	176.0	179.9	184.3	189.3	194.7
37	Transportation.....	68.5	69.4	70.1	70.2	71.0	71.3	71.8	70.7	70.9	70.2	71.0	69.7	69.4	69.3	68.8
38	Railroad transportation.....	43.1	43.5	43.8	43.5	43.5	43.5	43.4	42.5	41.6	41.2	41.2	40.0	39.9	37.9	38.8
39	Local and interurban passenger transit.....	5.6	5.7	5.8	5.4	5.2	5.0	4.8	4.5	4.5	4.3	4.1	3.7	3.5	3.3	3.2
40	Trucking and warehousing.....	6.5	6.9	6.3	6.3	7.8	7.2	7.2	7.0	7.3	7.4	7.3	7.6	8.2	8.8	8.9
41	Water transportation.....	6.3	6.3	6.1	5.9	6.0	6.2	6.4	6.3	6.2	6.4	6.7	6.9	7.1	7.1	7.1
42	Transportation by air.....	1.5	1.6	1.6	1.6	1.6	1.6	1.5	2.1	2.1	2.5	2.9	3.1	3.6	4.3	4.6
43	Pipelines, except natural gas.....	4.2	4.4	4.4	4.5	4.7	4.9	5.2	5.3	5.3	5.2	5.2	5.1	5.0	5.0	4.9
44	Transportation services.....	2.1	2.1	2.2	2.4	2.7	2.9	2.8	2.8	3.0	3.0	3.0	2.9	3.0	3.2	3.2
45	Communication.....	14.3	16.4	17.9	19.1	20.1	21.5	23.1	24.4	25.9	28.3	30.4	31.5	32.8	34.0	35.4
46	Telephone and telegraph.....	13.6	15.5	16.9	18.2	19.1	20.5	22.0	23.2	24.7	27.9	29.9	30.2	31.1	32.1	33.8
47	Radio and television broadcasting.....	.8	.9	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.4	1.5	1.6	1.7	1.8	2.1
48	Electric, gas, and sanitary services.....	26.3	28.6	29.2	27.5	24.3	25.2	26.7	28.3	29.8	30.8	30.8	29.4	28.4	28.0	27.5
49	Electric services.....	23.4	25.9	26.6	24.7	21.2	22.3	23.6	25.2	26.8	27.8	28.0	26.8	25.8	25.5	25.1
50	Gas services.....	10.3	10.9	11.3	11.1	14.7	15.3	16.4	17.8	17.9	18.8	18.8	18.8	18.8	18.8	18.8
51	Sanitary services.....	2.7	2.7	2.6	2.7	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
52	Wholesale trade.....	6.7	6.2	4.7	7.2	7.5	7.6	7.9	8.3	9.0	9.4	9.9	10.2	10.7	12.5	12.1
53	Retail trade.....	17.4	18.5	19.3	19.5	20.9	20.7	21.5	22.3	23.7	24.6	25.2	26.1	27.5	28.8	29.0
54	Finance, insurance, and real estate.....	39.0	40.2	41.5	44.8	47.6	49.1	52.0	55.4	60.2	64.4	68.2	71.3	77.1	82.0	81.3
55	Banking.....	9.4	9.4	9.4	9.5	9.6	9.5	9.7	9.9	9.8	9.6	9.5	9.3	9.8	9.2	8.6
56	Credit agencies other than banks.....	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.6	2.1	2.3	2.4	2.5	2.8	3.0	3.1
57	Security, commodity brokers and services.....	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8
58	Insurance carriers.....	.7	.8	.9	.9	1.0	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.8	2.0
59	Insurance agents, brokers, and services.....	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8	.8
60	Real estate.....	32.8	38.9	35.3	38.0	40.4	41.9	44.3	47.3	61.3	64.0	68.1	71.0	69.4	69.4	70.9
61	Holding and other investment companies.....	.3	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
62	Services.....	13.7	14.3	14.9	16.1	17.1	18.2	19.9	21.5	22.7	23.7	27.7	28.5	31.7	34.2	35.5
63	Hotels and other lodging places.....	4.0	4.9	3.8	3.8	3.7	3.6	3.6	3.7	3.9	4.1	4.4	4.7	5.3	5.9	6.7
64	Personal services.....	1.3	1.4	1.4	1.5	1.6	1.7	1.8	2.0	2.2	2.3	2.4	2.5	2.8	2.9	3.1
65	Business services.....	1.4	1.5	1.5	1.8	2.0	2.2	2.5	2.7	3.0	3.3	3.6	3.8	4.1	4.3	4.5
66	Auto repair, services, and garages.....	1.0	1.2	1.3	1.5	1.8	2.2	2.7	3.3	4.1	4.4	4.8	5.0	5.2	5.6	5.8
67	Miscellaneous repair services.....	.3	.3	.4	.4	.4	.5	.5	.6	.6	.7	.8	.8	.8	.9	.9
68	Motion pictures.....	.5	.6	.6	.6	.6	.6	.7	.7	.8	.8	.8	.8	.8	.9	1.0
69	Amusement and recreation services.....	2.5	2.7	2.8	3.0	3.0	3.1	3.3	3.4	3.5	3.6	3.7	3.8	4.0	4.2	4.4
70	Other services.....	2.5	2.8	3.0	3.5	3.0	4.3	4.7	5.1	5.7	6.4	7.2	7.9	8.7	9.1	10.2
71	Health services.....	1.1	1.2	1.3	1.5	1.8	2.0	2.3	2.3	2.7	3.0	3.4	3.8	4.2	4.6	4.9
72	Legal services.....	.5	.7	.7	.7	.8	.8	.8	.9	.9	1.0	1.1	1.1	1.2	1.2	1.3
73	Educational services.....	.2	.2	.2	.2	.3	.3	.3	.4	.4	.4	.4	.4	.5	.5	.5
74	Other.....	.7	.8	.9	1.0	1.1	1.2	1.3	1.5	1.7	2.0	2.3	2.5	2.8	3.1	3.5
75	Residential.....	341.5	358.7	373.0	395.8	413.0	422.6	444.9	452.9	485.8	504.8	521.1	542.2	564.8	583.8	602.5
76	Farms.....	24.8	25.3	25.8	26.1	26.2	26.1	26.0	25.3	25.4	25.2	24.8	24.5	24.2	23.8	23.6
77	Real estate.....	316.7	333.4	347.2	369.7	386.8	406.6	418.9	427.3	460.2	479.6	496.3	517.7	540.8	560.0	578.9

1. Estimates are as of the end of the year.

2. Consists of social services, membership organizations, and miscellaneous professional services.

Nonresidential and Residential, by Industry, 1947-81¹

1972 dollars

1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	Line
1,239.9	1,299.0	1,344.3	1,447.1	1,473.4	1,532.5	1,597.4	1,666.6	1,722.8	1,798.8	1,862.0	1,939.2	2,015.9	2,093.9	2,161.4	2,246.2	2,346.7	2,392.7	2,392.3	2,464.3	1
618.2	639.5	666.5	709.0	706.7	746.5	830.1	853.2	881.6	933.3	991.2	1,042.7	1,098.2	1,160.2	1,215.4	1,279.6	1,318.7	1,371.0	1,316.7	1,362.9	2
44.5	45.5	46.7	48.5	50.5	52.6	54.2	55.6	57.2	58.8	59.9	62.9	65.4	68.4	71.8	74.9	78.6	81.9	82.9	82.9	3
41.9	42.9	43.9	45.6	47.5	49.6	51.0	52.8	53.6	54.9	55.9	58.6	61.4	64.2	67.2	70.5	73.4	76.5	77.6	76.5	4
2.5	2.5	2.7	2.9	2.9	3.0	3.2	3.3	3.7	3.9	4.1	4.2	4.3	4.3	4.5	4.8	5.2	5.5	5.8	6.1	5
43.4	43.8	45.3	47.4	48.6	49.2	49.7	50.4	50.2	50.1	50.9	50.5	51.0	52.8	52.1	53.5	58.2	61.4	65.0	69.5	6
2.1	2.2	2.4	2.7	2.8	4.1	4.3	4.4	4.5	4.7	4.8	5.0	5.2	5.5	5.7	6.0	6.3	6.9	7.9	7.8	7
1.9	2.0	2.1	2.1	2.2	2.3	2.5	2.6	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.8	5.1	5.6	6.6	7.1	8
26.3	26.7	27.8	28.4	29.0	40.9	40.8	40.2	39.8	39.0	38.4	36.3	36.2	35.8	35.9	36.1	40.1	41.8	48.5	50.4	9
1.7	1.6	2.0	2.3	2.6	2.8	3.0	3.1	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.3	4.4	10
10.4	11.3	12.2	13.3	14.1	14.7	15.2	16.3	17.1	17.7	18.4	20.3	21.9	22.1	22.2	22.9	24.2	24.9	25.8	26.3	11
143.8	143.9	152.2	162.3	172.4	180.1	200.9	212.9	219.2	234.2	250.2	277.2	308.6	345.6	389.6	473.0	539.5	594.6	506.5	517.5	12
75.4	77.7	81.4	87.8	96.6	104.3	110.4	116.6	121.5	128.2	135.2	139.3	136.6	139.2	141.9	147.0	153.3	160.3	167.6	175.9	13
3.4	3.5	3.6	3.9	4.2	4.3	4.4	4.7	4.9	5.0	5.4	5.7	6.2	6.4	6.6	6.8	7.1	7.3	7.4	7.2	14
1.0	1.1	1.1	1.2	1.3	1.5	1.6	1.7	1.7	1.8	1.9	2.1	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.5	15
7.0	7.1	7.3	7.9	8.4	8.5	8.6	9.0	9.2	9.3	9.7	10.2	10.6	10.9	10.9	11.8	12.1	12.5	12.5	12.5	16
21.5	22.0	22.9	24.4	25.4	25.3	26.9	31.2	32.1	32.2	32.3	32.4	33.6	34.5	35.1	35.2	36.2	38.7	37.9	37.4	17
7.2	8.0	8.5	9.2	10.0	11.0	11.7	12.8	13.0	13.3	13.7	14.4	15.1	15.6	16.0	16.7	17.4	18.0	18.6	19.4	18
11.0	11.3	11.5	12.8	14.1	15.7	16.8	17.6	18.1	18.4	18.9	19.7	21.1	22.0	22.8	24.2	26.3	28.7	31.2	34.1	19
6.6	6.8	7.2	8.1	9.2	10.4	11.4	12.3	13.1	13.6	14.2	15.0	16.1	16.2	16.5	17.1	18.0	19.2	21.0	22.7	20
8.9	9.2	9.8	10.9	11.9	12.4	12.8	13.5	14.1	14.6	15.0	15.2	15.5	15.1	14.8	15.3	16.1	16.5	17.4	19.0	21
5.0	4.2	5.4	5.7	6.7	7.5	8.0	8.4	8.9	8.8	8.6	8.9	9.1	9.2	9.4	9.6	9.3	10.4	11.0	11.5	22
2.0	2.0	2.1	2.3	2.6	3.0	3.3	3.5	3.8	3.9	4.1	4.3	4.6	4.8	4.9	5.1	5.1	5.6	5.9	6.4	23
1.5	1.5	1.6	1.7	1.9	1.9	2.0	2.1	2.2	2.2	2.4	2.5	2.6	2.6	2.7	2.9	2.9	3.0	3.1	3.1	24
65.6	67.2	69.6	74.5	80.8	85.7	90.0	94.3	98.2	101.0	104.0	107.0	112.0	116.3	120.9	126.0	130.2	134.1	137.9	141.6	25
15.7	16.1	16.5	17.2	18.9	19.7	19.3	19.8	20.4	20.9	21.8	22.2	22.8	23.4	24.2	25.0	25.8	26.4	27.1	27.5	26
4.7	4.7	4.9	5.2	5.8	6.3	6.6	7.0	7.2	7.4	7.9	8.2	8.4	8.3	8.3	8.3	8.3	8.2	8.1	8.0	27
1.0	1.2	1.3	1.4	1.6	1.7	1.8	2.0	2.1	2.2	2.5	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	28
8.8	9.0	9.4	10.2	11.2	12.0	12.4	12.8	13.2	13.3	13.4	13.6	14.3	15.0	15.6	16.3	17.1	18.0	19.0	19.4	29
4.4	4.6	4.7	5.0	5.5	6.0	6.3	6.7	7.0	7.3	7.6	7.9	8.1	8.1	8.2	8.5	8.9	9.3	9.8	10.2	30
15.8	16.4	17.3	19.1	21.3	22.9	24.3	25.5	26.8	27.7	28.1	28.9	31.0	32.1	33.3	37.5	39.4	40.4	41.3	42.6	31
11.1	11.1	11.0	11.3	11.6	12.1	12.7	13.2	13.8	14.2	14.5	14.8	15.2	16.0	16.9	17.8	17.5	18.2	18.8	20.0	32
3.1	3.2	3.5	3.8	4.3	4.8	5.3	5.8	6.1	6.3	6.9	7.2	7.7	7.7	7.9	8.1	8.4	8.7	8.8	8.9	33
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	34
189.2	204.2	219.6	234.4	250.8	258.9	260.7	263.5	275.2	285.2	296.4	312.1	325.2	332.8	339.9	358.1	364.7	378.7	399.0	404.8	35
80.8	85.9	89.4	96.8	102.2	105.1	107.7	109.6	111.7	117.1	121.6	123.8	126.3	128.1	129.9	131.7	133.3	134.9	136.5	138.1	36
34.9	35.4	36.1	36.7	37.4	38.0	38.4	38.7	39.2	39.7	40.2	40.7	41.2	41.7	42.2	42.7	43.2	43.7	44.2	44.7	37
2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	38
9.4	9.9	10.1	10.2	10.5	10.5	10.9	11.5	12.0	12.6	13.3	13.8	14.4	15.0	15.6	16.3	17.1	18.0	19.0	19.4	39
7.1	7.1	7.1	7.2	7.3	7.4	7.7	8.1	8.5	8.9	9.3	10.1	10.4	11.0	11.6	12.2	12.8	13.5	14.2	14.6	40
5.2	5.2	5.6	6.3	7.4	8.3	10.8	12.2	12.9	12.9	13.1	13.6	14.2	14.8	15.4	16.0	16.9	17.8	18.8	20.0	41
4.5	5.0	5.1	5.0	5.0	5.2	5.5	5.6	5.9	5.9	5.9	6.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	42
3.8	3.4	3.7	4.1	4.7	5.4	6.2	6.4	6.7	6.9	7.1	7.2	7.5	7.5	7.4	7.3	7.5	7.6	7.8	7.7	43
41.2	44.2	46.9	50.4	54.2	57.8	61.3	65.2	71.1	75.6	79.4	85.0	90.2	93.2	95.0	101.0	107.6	115.7	123.0	128.9	44
35.8	41.7	44.2	47.5	51.0	54.1	57.6	61.5	67.0	71.3	75.0	80.3	85.4	88.4	90.9	95.7	102.0	109.9	116.8	123.1	45
2.3	2.5	2.7	2.9	3.2	3.5	3.7	3.9	4.1	4.3	4.5	4.6	4.8	4.9	5.0	5.1	5.3	5.5	5.6	5.6	46
89.9	92.1	94.4	97.4	101.5	106.2	111.7	117.1	122.8	127.6	133.8	141.0	146.6	150.9	153.7	157.9	162.9	168.6	171.7	175.1	47
36.2	38.2	40.9	43.8	47.1	50.4	53.7	57.0	60.3	63.6	66.9	70.2	73.5	76.8	79.1	82.4	85.7	89.0	92.3	95.6	48
32.8	34.0	34.5	35.3	36.0	37.2	38.7	40.2	41.7	43.2	44.7	46.2	47.7	49.2	50.7	52.2	53.7	55.2	56.7	58.2	49
2.8	2.9	2.9	2.9	3.0	3.0	3.1	3.2	3.3	3.3	3.5	3.7	3.8	3.8	3.9	4.0	4.0	4.0	4.0	4.0	50
13.2	14.5	16.2	18.1	19.8	21.4	23.2	25.1	26.8	28.3	29.8	31.3	32.8	34.3	35.8	37.3	38.8	40.3	41.8	43.3	51
31.5	33.1	35.0	37.9	40.9	44.4	48.9	53.4	57.9	62.4	66.9	71.4	75.9	80.4	84.9	89.4	93.9	98.4	102.9	107.4	52
93.6	98.9	105.2	112.6	121.5	130.3	139.2	148.1	157.0	165.9	174.8	183.7	192.6	201.5	210.4	219.3	228.2	237.1	246.0	254.9	53
7.2	7.7	8.4	9.1	9.9	10.6	11.3	12.0	12.7	13.4	14.1	14.8	15.5	16.2	16.9	17.6	18.3	19.0	19.7	20.4	54
3.4	3.6	4.1	4.7	5.3	5.9	6.5	7.1	7.7	8.3	8.9	9.5	10.1	10.7	11.3	11.9	12.5	13.1	13.7	14.3	55
4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	56
2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	57
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	58
78.9	83.2	88.2	94.5	100.8	108.0	114.4	120.8	124.0	129.0	136.0	143.0	149.0	155.0	161.0	167.0	173.0	179.0	185.0	191.0	59
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	60
39.2	42.6	46.0	49.4	52.8	56.2	59.6	63.0	67.4	71.8	76.2	80.6	85.0	89.4	93.8	98.2	102.6	107.0	111.4	115.8	61
7.3	8.3	9.3	10.1	10.9	11.6	12.2	12.9	13.5	14.1	14.8	15.4	16.0	16.6	17.2	17.8	18.4	19.0	19.6	20.2	62
3.3	3.4	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	63
4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.2	9.5	9.8	10.1	10.4	64
6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8											

The National Income and Products Accounts of the United States: An Overview

This article presents a summary explanation of BEA's national income and product accounts. It is an expansion of the article that appeared in the October 1979 SURVEY OF CURRENT BUSINESS, and it incorporates the results of the recently completed comprehensive revision of the national income and product accounts. An appendix to the article presents the definitions that underlie these accounts. These definitions provide detail that cannot be included in a summary explanation.

THE national income and product accounts (NIPA's) show the economic process—i.e., the production, distribution, and use of output. Although the measurement of production is the function of the NIPA's that is best known, they gained their preeminence as a tool of macroeconomic analysis because, in

addition to measuring production, they present a summary picture of the economic process. The first section of this article explains how production is measured in the NIPA's, and the second section explains how the NIPA's provide a summary picture of the economic process.

The Measurement of Production

ABOUT 85 percent of GNP—the most popular measure of the production of the Nation—originates in business. Accordingly, a good way to explain the GNP is to show how the production attributable to a single business unit can be measured. It can be measured in two ways: in terms of products, i.e., goods and services; and in terms of incomes generated in production.

GNP as a sum of products

Of all the magnitudes that are observable for a business unit, its sales come closest to its production, but they are not equivalent to it. First, sales fall short of production if some of the unit's production is added to inventories. Conversely, sales exceed production if inventories are drawn down. Second, sales and inventory change of a unit measure not only the production attributable to that unit (also called product originating in, or the value added by, the unit), but also the raw materials, semifinished products, and finished products—more precisely, any

product other than plant and equipment intended for use by the purchasing unit—that the unit purchases from other units. Because these purchases are the production of the other units, they must be deducted from the sum of a unit's sales and inventory change to derive the production attributable to that unit. In NIPA terminology, these purchases are called current-account purchases. (The term "intermediate products" is often used interchangeably with current-account purchases.)

Thus, the production attributable to the business unit can be measured by the following formula:

Value of production = sales + inventory change – current-account purchases.

The next step is to regard GNP as the sum of the production of all the business units that operate in the economy and to examine what happens to the formula if it is so interpreted. Its inventory change component stands. Because the current-account purchases of one unit are the sales of another, they

cancel out for the economy as a whole. In an economy like that of the United States, the sales that do not cancel ("final sales") can be seen to consist of (1) sales to consumers, (2) gross fixed investment (the plant and equipment that was omitted from current-account purchases), (3) sales to government, and (4) sales to foreigners—exports. Exports are measured after deduction of imports. Imports are reflected in final sales and also in the inventory change component of the formula. But they are foreign rather than U.S. production, and must be deducted if the aim is to derive a measure of production attributable to the United States.

About 15 percent of GNP originates outside of business. Nonbusiness production includes the services provided by household employees (and by the employees of nonprofit institutions), the services provided by government employees, and the services provided to foreigners abroad by factors of production—labor and property—owned by residents of the United States (net of the services provided in the United States by factors of production owned by residents of foreign countries). The first two categories of nonbusiness production are measured by the compensation of employees of households (and nonprofit institutions) and of government. The last category is measured by the net inflow from abroad of employee compensation and—much more important—of property incomes (interest and profits). The household component is treated as a sale to consumers; the government component, as a sale to government; and the foreign component, as a sale to foreigners.

This is a drastically abbreviated explanation of GNP and, at a minimum,

requires the following further explanations.

First, the reference to business "units" was intentionally ambiguous. On the one hand, units may be establishments (e.g., factories); on the other, they may be firms (enterprises, companies, corporations). The former tend to reflect technologies, the latter tend to reflect financial arrangements.¹

Second, each of the components of final sales has characteristics that are not obvious. For instance, fixed investment is defined "gross," i.e., no deduction is made for plant and equipment used up in production. Another characteristic of fixed investment is that it covers, in addition to residences bought by business, residences bought by households. Common sense suggests that such purchases are investment rather than consumption.

Third, in addition to monetary transactions, GNP includes "imputations" for certain items of production in kind. These amount to less than 10 percent of GNP. The major items are: wages and salaries in kind, food and fuel produced and consumed on farms, the value of services rendered by owner-occupied residences, and the value of services furnished without payment by financial intermediaries. Each of these imputations is made in order to obtain a better view of total national output and of its distribution. This statement can be illustrated by one of the imputations for wages and salaries in kind. If only monetary transactions were taken into account, meals provided free to restaurant workers—unlike meals sold by restaurants—would not appear as part of GNP, and wages of restaurant workers would be understated relative to the wages of workers who receive their wages entirely in monetary form.

1. There are several systems of economic accounts that, taken together, are commonly called the national economic accounts. One of these systems, the input-output accounts, because it shows how the industries of the Nation interact to produce the GNP, are based on a technological definition of the business unit. Another system, the detailed saving-investment accounts, because it shows the transactions in the markets that transform saving into investment, are based on a financial definition. Inasmuch as the NIPA's may be viewed as the system that summarizes the national economic accounts, they would seem to require both. The establishment-firm dichotomy is one of the most important obstacles to integration within and among parts of the national economic accounts.

GNP as a sum of incomes

The second way of measuring GNP is based on a self-evident proposition:

$$\text{Value of production} = \text{costs of production} + \text{profits.}$$

To shorten the discussion, the following explanation omits the application of this formula to the single business unit, and applies it directly to business as a whole. When the formula is applied to business as a whole, a major category of costs of a single business unit—current-account purchases—cancels out because, as has been explained, the current-account purchases of one unit are the sales of another. The costs remaining in the formula fall into four main categories: compensation of employees, net interest, depreciation and other capital consumption allowances, and indirect business taxes. Employee compensation consists mainly of wages and salaries, but includes also employer contributions to social security and private pension and welfare funds. Net interest is interest paid by the business less the interest it receives. Depreciation, etc., represents the cost of plant and equipment used up in production. Indirect business taxes are taxes that can be charged to business expense—for example, sales and excise taxes and business property taxes.

The difference between the value of business production and the costs just enumerated is business profits, of which corporate profits is the largest category. Corporate profits are measured before taxes on them. (Corporate profits taxes are not an expense in the strict sense of the word, because, unlike business expenses proper, they cannot be determined before profits are calculated.) The other major profits category is labeled proprietors' income, and covers the incomes of proprietorships and partnerships. The last category of profits, called rental income of persons, is very similar to proprietors' income.

This itemization of costs and profits is applicable to business production. The items used to measure nonbusiness production were enumerated earlier. In measuring GNP as a sum of incomes, these items are combined with corre-

sponding items of business costs and profits.

A graphic summary.—Business and nonbusiness production, and production in terms of products and of incomes, are quantified for 1980 in the upper panel of chart 6.² The bulk of production is seen to originate in business; out of a total of \$2,629 billion, \$2,224 billion originates in this sector. Production attributable to households accounts for \$86 billion, production attributable to government for \$269 billion, and production attributable to factors of production provided (net) by U.S. residents to foreigners abroad—called rest-of-the-world production—accounts for \$50 billion. Without rest-of-the-world production, the total is called gross domestic product. This total, which is \$2,579 billion, is useful in studies that focus on production attributable to factors of production located in the United States.

The right-hand side of the panel shows production measured in terms of products, and the left-hand side shows production measured in terms of incomes. For the business sector, the distinction between products and incomes is observable in the real world; for the other sectors, only incomes are observable. The sequence of incomes shown for the business sector differs from the costs-profits sequence just described for reasons that will be explained in the next section.

The chart also shows how the sectors' corresponding product items and corresponding incomes items are combined to derive the National Income and Product (NIP) Account, which is shown in the lower panel. For example, sales to persons by business and by consumers are combined to become personal consumption expenditures, and compensation of employees by business, by households, and by government is combined into a total for compensation of employees.

The national income and product account

The NIP account is shown as account 1 of table 1. On the right-hand side,

2. The estimates shown in chart 6 are those in the January 1981 Survey.

Table 1.—Summary National Income and Product Accounts, 1980—Continued

(Billions of dollars)

Account 2.—Personal Income and Outlay Account

Line			Line		
1	Personal tax and nontax payments (2-18).....	338.7	7	Wage and salary disbursements (1-3).....	1,342.9
2	Personal outlays.....	1,718.7	8	Other labor income (1-7).....	137.1
3	Personal consumption expenditures (1-20).....	1,471.1	9	Proprietors' income with inventory valuation and capital consumption adjustments (1-8).....	120.6
4	Interest paid by consumers to business (2-18).....	46.5	10	Rental income of persons with capital consumption adjustment (1-9).....	21.9
5	Personal transfer payments to foreigners (net) (4-6).....	1.1	11	Personal dividend income.....	51.4
6	Personal saving (5-3).....	108.6	12	Dividends (1-14).....	55.8
			13	Less: Dividends received by government (3-10).....	1.6
			14	Personal interest income.....	256.6
			15	Net interest (1-18).....	183.1
			16	Interest paid by government to persons and business (3-7).....	73.7
			17	Less: Interest received by government (3-9).....	42.6
			18	Interest paid by consumers to business (2-4).....	45.5
			19	Transfer payments to persons.....	294.4
			20	From business (1-20).....	10.6
			21	From government (3-5).....	283.9
			22	Less: Personal contributions for social insurance (3-21).....	87.9
	PERSONAL TAXES, OUTLAYS, AND SAVING.....	2,161.0		PERSONAL INCOME.....	2,161.0

Account 3.—Government Receipts and Expenditures Account

1	Purchases of goods and services (1-40).....	583.8	16	Personal tax and nontax payments (2-1).....	338.7
2	Transfer payments.....	294.4	17	Corporate profits tax liability (1-12).....	80.8
3	To persons (2-21).....	294.9	18	Indirect business tax and nontax liability (2-21).....	212.2
4	To foreigners (net) (4-6).....	4.5	19	Contributions for social insurance.....	294.7
5	Not interest paid.....	22.6	20	Employer (1-8).....	115.8
6	Interest paid.....	85.2	21	Personal (2-22).....	87.9
7	To persons and business (2-18).....	72.7			
8	To foreigners (4-7).....	12.5			
9	Less: Interest received by government (2-17).....	42.8			
10	Less: Dividends received by government (2-12).....	1.6			
11	Subsidies less current surplus of government enterprises (1-22).....	4.5			
12	Less: Wage accruals less disbursements (1-4).....	0			
13	Surplus or deficit (-), national income and product accounts (5-10).....	-38.3			
14	Federal.....	-61.6			
15	State and local.....	23.2			
	GOVERNMENT EXPENDITURES AND SURPLUS.....	835.4		GOVERNMENT RECEIPTS.....	835.4

Account 4.—Foreign Transactions Account

1	Exports of goods and services (1-38).....	240.6	3	Imports of goods and services (1-38).....	314.5
2	Capital grants received by the United States (net) (3-11).....	1.1	4	Transfer payments to foreigners (net).....	5.6
			5	From persons (net) (3-6).....	1.1
			6	From government (net) (3-6).....	4.5
			7	Interest paid by government to foreigners (3-8).....	12.5
			8	Net foreign investment (3-3).....	9.1
	RECEIPTS FROM FOREIGNERS.....	241.7		PAYMENTS TO FOREIGNERS.....	341.7

Account 5.—Gross Saving and Investment Account

1	Gross private domestic investment (1-35).....	296.5	9	Personal saving (2-6).....	122.6
2	Net foreign investment (4-8).....	9.1	10	Wage accruals less disbursements (1-4).....	0
			11	Undistributed corporate profits with inventory valuation and capital consumption adjustments.....	45.3
			12	Undistributed corporate profits (1-15).....	105.8
			13	Inventory valuation adjustment (1-16).....	-49.3
			14	Capital consumption adjustment (1-17).....	-17.2
			15	Capital consumption allowances with capital consumption adjustment (1-26).....	287.5
			16	Government surplus or deficit (-), national income and product accounts (5-13).....	-38.3
			17	Capital grants received by the United States (net) (4-3).....	1.1
			18	Statistical discrepancy (1-23).....	1.7
	GROSS INVESTMENT.....	406.0		GROSS SAVING AND STATISTICAL DISCREPANCY.....	406.0

NOTE.—Numbers in parentheses indicate accounts and items of counterentry in the accounts. For example, the counterentry for wage and salary disbursements, (2-7), is in account 2, line 7.

1. The estimates are those published in the January 1981 Survey of Current Business.

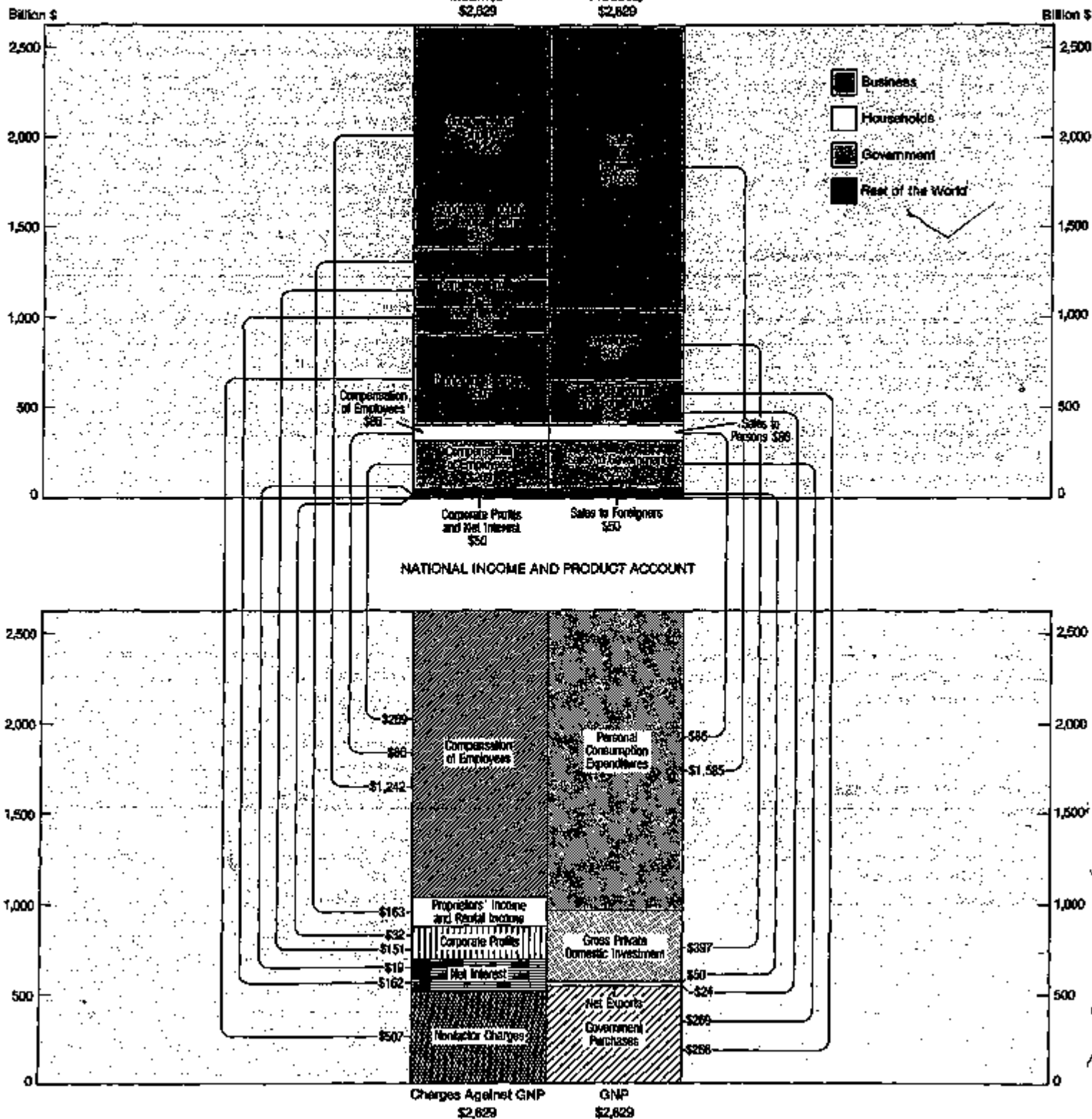
Derivation of the National Income and Product Account, 1980

PRODUCTION ORIGINATING, BY SECTOR

Measured In Terms of

Incomes

Products



A Picture of the Economic Process

THE sketch of the first function of the NIPA's—the provision of measures of the total output of the Nation—has been completed. An explanation of their second function—the provision of a picture of the economic process in terms of the production, distribution, and use of output—is taken up next.

Inspection of the NIP account shows that it provides considerably more than a product and an income measure of total GNP. In addition, it provides important clues to the distribution and use of GNP. For instance, it shows the part of GNP that goes to consumers ("persons" in the NIPA's, to indicate that nonprofit institutions and a few other entities are merged with households proper). It also shows, on the left-hand side of the account, many of the incomes—for instance, wages and salaries—that persons receive and use to purchase goods and services. In other words, the NIP account shows many of the elements that are necessary for a comprehensive accounting of the distribution of GNP to, and the use of it by, persons—one of the major economic groups distinguished in the NIPA's because these groups determine the working of the economy. But the picture is incomplete. The NIP account does not show all the income receipts of persons; for instance, old-age and unemployment benefits and other transfer payments received from government are not shown. Nor does it show individual income and other personal taxes, or personal saving.

A similar situation holds for the other major economic groups, government and foreigners: The NIP account shows some but not all of their receipts and expenditures.

Finally, information is incomplete for the part of GNP that is saved and invested. The NIP account shows the part of GNP that is invested domestically, but not foreign investment. Among the forms of saving that make investment possible, only business saving (undistributed corporate profits and capital consumption allowances) is shown.

Recognition of these gaps in the information relating to the distribution and use of the GNP suggests a way in which these gaps can be filled: Accounts are established for persons, government, and foreigners to record systematically all the receipts of these groups and the disposition they make of these receipts, and an account is established for the several forms of domestic saving these groups generate and the investment their saving makes possible. These accounts are shown as accounts 2 through 5 in table 1. They do not involve a calculation of profit or loss, as does the NIP account, because they are receipt and expenditure accounts—unlike the NIP account, which is fashioned after a business income statement. Also, there is a difference between the personal, government, and foreign accounts on the one hand, and the saving-investment account on the other. The former refer to economic groups. The latter cuts across them and shows the saving and investment transactions of all domestic groups.

The remaining task is to fill in accounts 2 through 5. First, counterentries to the transactions that appear in the NIP account are made in the appropriate accounts. For instance, personal consumption expenditures, which are a receipt in the NIP account, appear as a disposition of receipts in the personal income and outlay account. Second, the accounts are completed by filling in transactions not yet encountered—transactions that occur between two of these accounts. These new entries are explained below.

Personal income and outlay account

In the personal income and outlay account, several new items are encountered on the receipts side: dividends received by government, interest paid by government to persons and business less interest received by government, interest paid by consumers to business, transfer payments to persons from government, and personal contributions for social insurance. Dividends received by government is encountered because it

must be subtracted from the dividend total in the NIP account to derive personal dividend income.

The interest items are encountered as part of a presentation that replicates the methodology of deriving personal interest income from the net interest item in the NIP account. This derivation is seen most easily in algebraic form. If interest is paid (p) and received (r) by business (B), by persons (P), by government (G), and by foreigners in transactions with the United States (F), then:

$$B_p + P_p + G_p + F_p = B_r + P_r + G_r + F_r, \\ \text{and} \\ P_r = (B_r - B_p) + (F_r - F_p) + G_r - G_p + P_p.$$

Inasmuch as $(B_r - B_p) + (F_r - F_p)$ is the net interest item in the NIP account, it can be seen that personal interest income equals net interest plus interest paid by government less interest received by government plus interest paid by persons. The differences between the terminologies used in the algebraic formulation and in the personal income and outlay account mainly reflect classificational features of the NIPA's.³

Transfer payments by government to persons consists of social security and unemployment insurance benefits, veterans' pensions, and other items paid by government to persons for which the latter do not perform current services. Personal contributions for social insurance consists of contributions of employees and the self-employed to social security and similar government plans.

On the disposition side of the account, the new items are personal taxes, interest paid by consumers to business, personal transfer payments to foreigners, and saving. Personal taxes consists of

3. These differences relate to G_p and P_p . "Interest paid by government to persons and business" is used instead of G_p to indicate that interest paid by government to foreigners is handled separately. Such payments are not regarded as payments for services produced by property supplied by foreigners to the United States, and are therefore excluded from production in the rest of the world (and hence also from the NIP account). "Interest paid by consumers to business" is used instead of P_p to indicate (1) that interest paid by nonprofit institutions is excluded (it is included in the business component of "net interest"), (2) that mortgage interest paid is excluded (it also is included in the business component of "net interest"), and (3) that it is assumed that consumers pay interest only to business.

the individual income tax and other taxes paid by persons that cannot be charged to business expense. Interest paid by consumers to business consists of interest paid by individuals in their capacity as consumers. Transfer payments to foreigners consists of remittances and other gifts in cash and in kind made by U.S. persons to residents of foreign countries. Finally, saving is the difference between personal income and the outlays listed on the disposition side of the account.

Government receipts and expenditures account

The government receipts and expenditures account, which can be regarded as a budget statement within the framework of the NIPA's, shows three new items: transfer payments to foreigners, interest paid to foreigners, and surplus or deficit. Government transfer payments to foreigners consists of non-military grants in cash and in kind made to foreign nations and of transfer payments to former residents of the United States. Interest paid to foreigners consists of interest paid by the U.S. Government to foreign business, governments, and persons. The government surplus or deficit is the difference between government receipts and expenditures.

Foreign transactions account

The foreign transactions account, which is an embryonic balance of payments statement for the United States, shows two new items: net foreign investment, and capital grants received by the United States. The latter consists mainly of allocations of Special Drawing Rights to the United States by the International Monetary Fund. Net foreign investment is the increase of U.S. claims on foreigners less the increase of foreign claims on the United States. U.S. exports give rise to claims on foreigners, as do capital grants received by the United States. U.S. imports, transfer payments paid to foreigners, and interest paid by government to foreigners give rise to foreign claims on the United States.

Gross saving and investment account

There are no new entries in the gross saving and investment account. This

account exhibits the well-known ex post equality of total saving and total investment.

Estimates Supporting the Summary NIPA's

THE figures shown in table 1 are only the tip of the iceberg. Information is available not only for years but also for quarters and, in the case of personal income and its disposition, for months. For most annual information, the period since 1929 is covered; for most quarterly and monthly information, the post World War II period is covered. For GNP and its product components, current-dollar measures, such as those shown in table 1, are separated into "real" measures—i.e., measures from which price change has been eliminated—and measures of price change. Finally, most of the items shown in table 1 are available in much greater detail. For instance, annual estimates of personal consumption expenditures are broken down into about 100 types of expenditures, and annual and quarterly estimates of government receipts and expenditures are shown separately for the Federal Government and for State and local governments.

Major measures of production and income.—Four widely used measures of production and income—GNP, national income, personal income, and disposable personal income—are shown in chart 7 for 1980.⁴ GNP and national income are comprehensive measures of production. In the chart, the difference

between them is separated into capital consumption and indirect business taxes, etc.; the latter makes up the difference between the market-price and factor-cost valuations.

Personal income is sometimes used as a proxy measure of production because it is available for regions of the Nation and because the national measure is available monthly. It differs from production because it excludes some incomes that represent production but are not distributed to persons—for example, social security taxes and undistributed corporate profits—and includes some incomes that do not represent current production—for example, transfer payments. Because, especially in the short run, some of these incomes do not follow the course of total production, the proxy is imperfect. In the chart, the former is shown as what is subtracted, and the latter as what is added, in order to derive personal income from national income.

Personal income and its disposition—taxes, outlays, and saving—are useful in their own right, especially because persons are the largest among the economic groups whose interaction determines the working of the economy: Persons receive most of the income, account for the single largest share of taxes, give rise to the bulk of the demand for GNP, and contribute substantially to the saving that finances investment.

4. The estimates shown in chart 7 are those published in the January 1981 Survey.

Appendix: Definitions Underlying the National Income and Product Accounts

Definitions of NIPA Entries

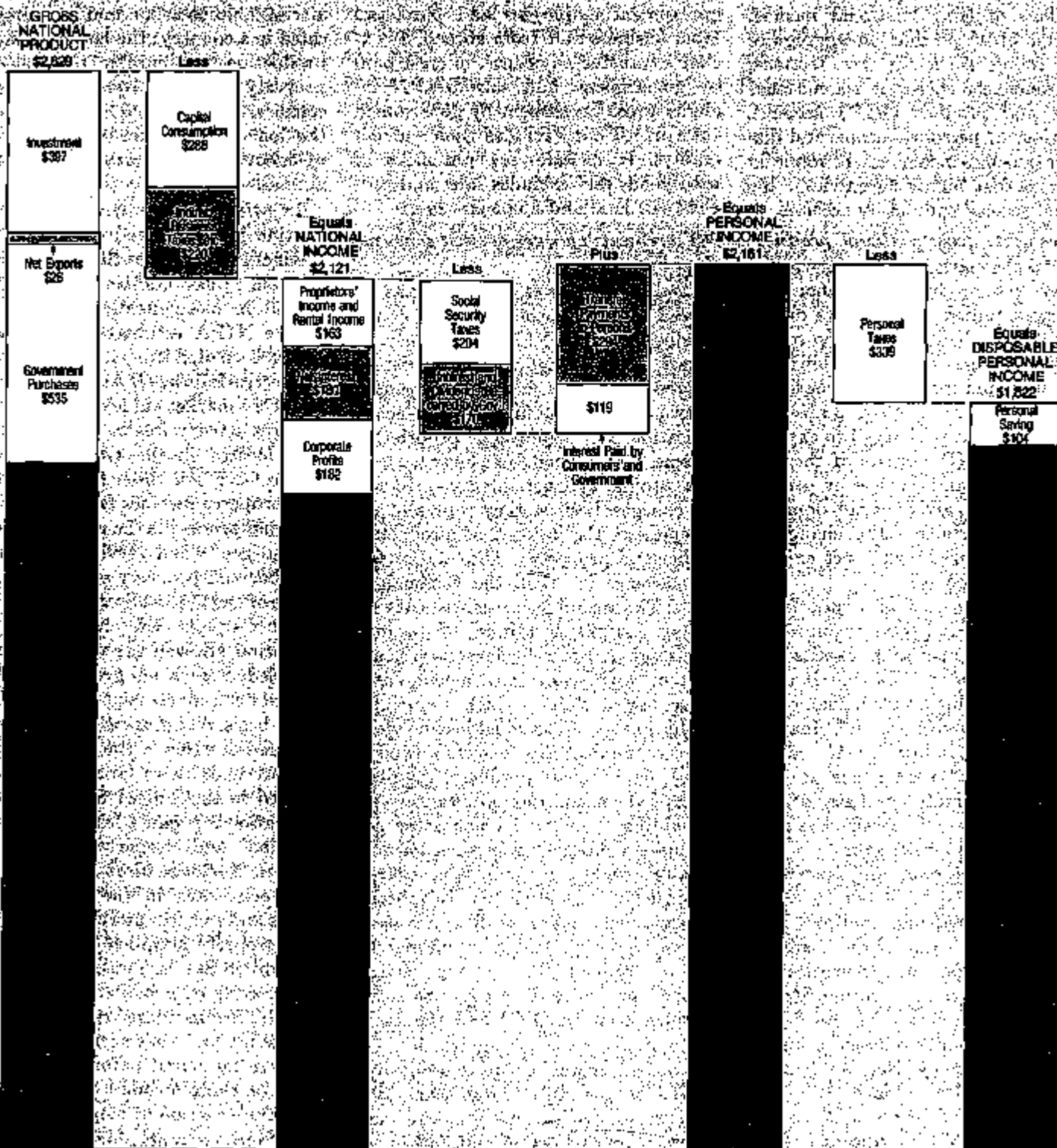
Income and product aggregates are defined below, and their definitions are amplified by definitions of their major components. Aspects of the aggregates and their major components that are not apparent from their titles are emphasized.

The definitions are presented in the framework of the five-account summary of the national income and product accounts (NIPA's) shown in table 1. Each entry has a counterentry, generally in another account. The parenthetical numbers that follows an entry in table 1 identify the counterentry by account and line number.

CHART 7

Major Measures of Production and Income, 1980

- GROSS NATIONAL PRODUCT is the market value of goods and services produced
- NATIONAL INCOME is the income from the production of goods and services
- PERSONAL INCOME is the income received by persons from all sources
- DISPOSABLE PERSONAL INCOME is the income remaining to persons after payments of personal taxes



With the exception of major income and product aggregates, entries are usually defined in this appendix in the sequence in which they appear in the five-account summary. Their definition is not repeated when the counterentries appear, but a cross-reference is made to the place of their first appearance. The definitions of GNP, national income, and some other production aggregates can be found in the first two sections, which define the entries in the national income and product (NIP) account. Definitions of personal income and disposable personal income can be found in the section that defines the entries in the personal income and outlay account.

NIP account: gross national product

GNP is the market value of the goods and services produced by labor and property supplied by residents of the United States, before deduction of depreciation charges and other allowances for business and institutional consumption of fixed capital goods and after deduction of products charged to expense by business. GNP consists of the purchases of goods and services by persons and government, gross private domestic investment (including the change in business inventories), and net exports (exports less imports).

Personal consumption expenditures (1-26) is goods and services purchased by individuals, operating expenses of nonprofit institutions serving individuals, and the value of food, fuel, clothing, rent of dwellings, and financial services received in kind by individuals. Net purchases of used goods are also included. All private purchases of residential structures are classified as gross private domestic investment.

Gross private domestic investment (1-30) is fixed capital goods purchased by private business and nonprofit institutions, and the value of the change in the physical volume of inventories held by private business. The former include all private purchases of residential structures whether purchased for tenant or owner occupancy. Net purchases of used goods are also included.

Net exports of goods and services (1-33) and (1-39) is exports less imports of goods and services. Exports are part of national production. Imports

are not, but are included in the components of GNP, and are therefore deducted. There are differences between the NIPA measures of exports and imports and those in the detailed balance of payments accounts.

Government purchases of goods and services (1-40) is the compensation of government employees and purchases from business and from abroad. It excludes transfer payments, interest paid by government, and subsidies. It includes gross investment by government enterprises, but excludes their current outlays. It includes net purchases of used goods and excludes sales and purchases of land and financial assets.

NIP account: charges against gross national product

Charges against GNP is the costs incurred and the profits earned in the production of GNP. Accordingly, it equals GNP, except for the statistical discrepancy. These charges are arranged in two groups. The first of these—compensation of employees, proprietors' income, rental income of persons, corporate profits, and net interest—are factor charges, because they represent the incomes of the factors of production (labor and property). The total of factor incomes is called the national income. The second group consists of non-factor charges. Addition of business transfers, indirect business taxes, and current surplus of government enterprises less subsidies—which are included in this group—to national income yields charges against net national product (and net national product). Addition of capital consumption allowances—the remaining item in the nonfactor cost group—to charges against net national product yields, in principle, charges against GNP (and GNP). In practice, measurement errors result in a statistical discrepancy, which is entered between national income and charges against net national product to secure balance between GNP and the factor and nonfactor charges against it.

The aggregates that have been enumerated so far differ from each other because of distinctions that are made between market value and factor cost concepts, and gross and net concepts. GNP as derived above is a gross market

value measure; national income is a net factor cost measure; and net national product is a net market value measure. One further basic distinction can be made in defining the value of production. This is the distinction between domestic measures and national measures. The former denote the production attributable to labor and property located in a country; the latter denote the production attributable to labor and property supplied by residents of a country. The national measures exceed the domestic measures by the net inflow of labor and property incomes from abroad.

In principle, eight measures of production can be derived from these three distinctions. Three of them are included in table 1; two additional ones are included in more detailed presentations of the NIPA estimates. GNP has already been defined. Definitions of the other five follow. *Gross domestic product* is the market value of the goods and services attributable to labor and property located in the United States. It equals GNP less the net inflow of labor and property incomes from abroad. *Net national product* is the net market value of the goods and services attributable to labor and property supplied by residents of the United States. Net national product equals GNP less capital consumption allowances; these allowances are deducted from gross private domestic fixed investment to express it on a net basis. *Net domestic product* is the net market value of the goods and services attributable to labor and property located in the United States. It equals net national product less the net inflow of labor and property incomes from abroad. *National income* is the income that originates in the production of goods and services attributable to labor and property supplied by residents of the United States. Thus, it measures the factor costs of goods and services produced. Incomes are recorded in the forms in which they accrue to residents, and are measured before deduction of taxes on those incomes. They consist of the compensation of employees, proprietors' income, rental income of persons, corporate profits, and net interest. *Domestic income* is the factor cost of the

goods and services attributable to labor and property located in the United States. It equals national income less the net inflow of labor and property incomes from abroad.

Compensation of employees is the income accruing to employees as remuneration for their work. It is the sum of wages and salaries and supplements to wages and salaries.

Wages and salaries consists of the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; and receipts in kind that represent income to the recipients. It consists of *disbursements* (1-3) and *wage accruals less disbursements* (1-4). Disbursements is wages and salaries as just defined except that retroactive wages are counted when paid rather than when earned.

Supplements to wages and salaries consists of employer contributions for social insurance and of other labor income. *Employer contributions for social insurance* (1-6) includes employer payments under the following programs: Federal old-age, survivors, disability, and hospital insurance; State unemployment insurance; railroad retirement and unemployment insurance; government retirement; and publicly administered workmen's compensation. *Other labor income* (1-7) includes employer contributions to private pension and welfare funds, and directors' fees.

Proprietors' income with inventory valuation and capital consumption adjustments (1-8) is the income, including income in kind, of proprietorships and partnerships and of producers' cooperatives. Interest and dividend income received by proprietors and rental incomes received by persons who are not primarily engaged in the real estate business are excluded. The inventory valuation adjustment is described under corporate profits and the capital consumption adjustment under capital consumption allowances.

Rental income of persons with capital consumption adjustment (1-9) is the income of persons from the rental of real property, except the income of persons primarily engaged in the real estate

business; the imputed net rental income of owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources. The capital consumption adjustment is described under capital consumption allowances.

Corporate profits with inventory valuation and capital consumption adjustments is the income of corporations organized for profit and of mutual financial institutions that accrues to residents, measured before profits taxes, before deduction of depletion charges, after exclusion of capital gains and losses, and net of dividends received from domestic corporations. Corporate profits includes net inflows from abroad of dividends, reinvested earnings of incorporated foreign affiliates, and earnings of unincorporated foreign affiliates. In other major respects, profits are defined as in Federal income tax regulations. The capital consumption adjustment is described under capital consumption allowances.

Profits before tax is corporate profits without inventory valuation and capital consumption adjustments.

Profits tax liability (1-12) is Federal, State, and local taxes on corporate income.

Profits after tax is profits before tax less profits tax liability. *Dividends* (1-14) is payments in cash or other assets, excluding stock, by corporations organized for profit to stockholders who are U.S. residents (including State and local social insurance funds). *Undistributed profits* (1-15) is corporate profits before tax less corporate profit tax liability and less dividends. It may also be viewed as the sum of purchases of fixed capital assets, the change in the book value of corporate inventories, and the net acquisition of financial assets, less the sum of capital consumption allowances, net borrowing, and net stock issues.

Inventory valuation adjustment (1-16) is the change in the business inventories component of GNP, which is measured as the change in the physical volume of inventories valued in prices of the current period, less the change in the value of inventories reported by

business (book value). The inventory valuation adjustment converts inventories at historical cost, the valuation concept generally underlying business accounting, to replacement cost, the concept underlying the NIPA's. It is required only for nonfarm inventories; the change in farm inventories is estimated directly. To make the measurement of charges against GNP consistent with GNP, an inventory valuation adjustment must be applied to reported corporate profits and proprietors' income.

Net interest (1-18) is interest paid by business less interest received by it, plus net interest received from abroad. In addition to monetary interest flows, net interest includes flows of interest in kind (imputed interest). The latter have their counterparts in service charges, which are included in personal consumption expenditures and in government purchases.

Business transfer payments (1-20) is payments to persons for which the latter do not perform current services. They include liability payments for personal injury, corporate gifts to nonprofit institutions and bad debts incurred by consumers. Most of personal consumption expenditures is stated before deduction of consumer bad debts; corporate profits and proprietors' income are stated after allowance for bad debts. Accordingly, bad debts have to be entered explicitly among the charges against GNP, and because they are written off rather than collected, they fit into the general category of transfer payments.

Indirect business tax and nontax liability (1-21) consists of tax liabilities (except employer contributions for social insurance) that are chargeable to business expense in the calculation of profit-type incomes, and of certain other business liabilities to government agencies (except government enterprises) that it is convenient to treat like taxes. Indirect business taxes includes sales, excise, and property taxes, and the windfall profit tax on crude oil production. Taxes on corporate income are excluded; these taxes cannot be calculated until profits are known, and in that sense, are not a business expense. Non-

taxes includes regulatory and inspection fees, special assessments, fines and penalties, rents and royalties, and donations. Nontaxes generally excludes business purchases from government of goods and services that are similar to business purchases of intermediate products from other businesses. Government receipts from the sale of such products are netted against government purchases so that they do not appear in GNP and other measures of production.

Subsidies less current surplus of government enterprises (1-22). *Subsidies* is the monetary grants paid by government to business, including government enterprises at another level of government. The *current surplus of government enterprises* is their sales receipts less their current outlays. In the calculation of their current surplus, no deduction is made for depreciation charges and net interest paid. Subsidies and current surplus are often combined because deficits incurred by government enterprises may result from selling goods to businesses at lower than market prices in lieu of giving them subsidies. This is also the major reason for not counting the current surplus of government enterprises as a profit-type income and, accordingly, as part of factor charges.

Statistical discrepancy (1-23) is GNP less charges against GNP other than the statistical discrepancy. It arises because GNP and charges against GNP are estimated independently by methodologies that are subject to error.

Capital consumption allowances with capital consumption adjustment (1-25). *Capital consumption allowances* consists of depreciation charges and accidental damage to fixed business capital. For nonfarm business, they are as reported on Federal income tax returns. For farms, nonprofit institutions, and owner-occupied houses, depreciation charges are not based on income tax returns, but instead are calculated to conform to NIPA definitions. *Capital consumption adjustment* (1-17) for corporations is the tax return-based capital consumption allowances less capital consumption allowances that are based on estimates of uniform service lives,

straight-line depreciation, and replacement cost. Similar adjustments are applied to proprietors' income, and rental income of persons. The capital consumption allowances with capital consumption adjustment for nonprofit institutions serving individuals is the value of the current services of the fixed capital assets owned and used by these institutions; it is included in personal consumption expenditures.

Personal income and outlay account

Personal income is the income received by persons from all sources, that is, from participation in production, from transfer payments from government and business, and from government interest, which is treated like a transfer payment. Persons consist of individuals, nonprofit institutions, private noninsured welfare funds, and private trust funds. Proprietors' income is treated in its entirety as received by individuals. Life insurance carriers and private noninsured pension funds are not counted as persons, but their saving is credited to persons. Personal income is the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments, less personal contributions for social insurance.

Disposable personal income is personal income less personal tax and non-tax payments. It is the income available to persons for spending or saving.

Wage and salary disbursements (see 1-8).

Other labor income (see 1-7).

Proprietors' income with inventory valuation and capital consumption adjustments (see 1-8).

Rental income of persons with capital consumption adjustment (see 1-9).

Personal dividend income is the dividend income of persons from all sources. It equals dividends (see 1-14) less dividends received by government (2-13). Dividends received by government consists of dividends received by State and local government social insurance funds.

Personal interest income is the interest income of persons from all sources. It equals net interest (see 1-18), plus interest paid by government to persons and business (2-16) less interest received by government (2-17) plus interest paid by consumers to business (2-18). The last item consists of all interest paid by individuals in their capacity as consumers, and accordingly excludes interest payments on mortgages and home improvement loans, because homeowners are treated as businesses in the NIPA's. The derivation of personal interest income can be explained as follows: Net interest equals interest paid by producers (in this case, business and U.S. residents supplying property services to abroad) to persons and government less interest received by producers from consumers and government. It therefore falls short of interest received by persons from producers by the amount of interest received by producers from consumers and government, and exceeds interest received by persons from producers by the amount of interest received by government from producers. Accordingly, the former is added to net interest, and the latter is deducted, to obtain personal interest income.

Transfer payments to persons is income payments to persons, generally in monetary form, for which they do not render current services. It consists of business transfer payments (see 1-20) and government transfer payments (2-21). Government transfer payments include payments under the following programs: Federal old-age, survivors, disability, and hospital insurance; supplementary medical insurance; State unemployment insurance; railroad retirement and unemployment insurance; government retirement; workmen's compensation; veterans, including veterans life insurance; food stamp; black lung; supplemental security income; and direct relief. Government payments to nonprofit institutions, other than for work under research and development contracts, is also included.

Personal contributions for social insurance (2-22) includes payments by employees, self-employed, and other individuals who participate in the follow-

ing programs: Federal old-age, survivors, disability, and hospital insurance; supplementary medical insurance; State unemployment insurance; railroad retirement insurance; government retirement; and veterans life insurance.

Personal tax and nontax payments (2-1) is tax payments (net of refunds) by persons (except personal contributions for social insurance) that are not chargeable to business expense, and of certain other personal payments to government agencies (except government enterprises) that it is convenient to treat like taxes. Personal taxes includes income, estate and gift, and personal property taxes. Nontaxes includes passport fees, fines and penalties, donations, and tuitions and fees paid to schools and hospitals operated mainly by government.

Personal outlays is the sum of personal consumption expenditures (see 1-26), interest paid by consumers to business (see 2-18), and *personal transfer payments to foreigners, net* (2-5). The last item is personal remittances in cash and in kind to abroad less such remittances from abroad.

Personal saving (2-6) is personal income less the sum of personal outlays and personal tax and nontax payments. It is the current saving of individuals (including proprietors), nonprofit institutions, private noninsured welfare funds, and private trust funds. Personal saving may also be viewed as the sum of net acquisition of financial assets (such as cash and deposits, securities, and the net equity of individuals in life insurance and in private noninsured pension funds) and physical assets less the sum of net borrowing and of capital consumption allowances with capital consumption adjustment.

Government receipts and expenditures account

Personal tax and nontax payments (see 2-1).

Corporate profits tax liability (see 1-12).

Indirect business tax and nontax liability (see 1-21).

Contributions for social insurance (see 1-6 and 2-22).

Purchases of goods and services (see 1-40).

Transfer payments is transfer payments to persons (see 2-21) and *transfer payments to foreigners, net* (3-4). The latter is U.S. Government nonmilitary grants to foreign governments in cash and in kind, and U.S. Government transfer payments, mainly retirement benefits, to former residents of the United States.

Net interest paid is interest paid by government less interest received by government (see 2-17). The former is interest paid to persons and business (see 2-16) and *interest paid to foreigners* (3-8). Interest paid to foreigners is interest paid by the U.S. Government to foreign businesses, governments, and persons.

Dividends received by government (see 2-18).

Subsidies less current surplus of government enterprises (see 1-22).

Wage accruals less disbursements (see 1-4).

Surplus or deficit (-), national income and product accounts (3-13) is the sum of government expenditures (lines 1, 2, 5, 10, 11, and 12 of account 3) less the sum of government receipts (lines 16, 17, 18, and 19 of account 3). It may also be viewed as the net acquisition of financial assets by government and government enterprises, and net government purchases of land and of rights to Government-owned land including oil resources.

Foreign transactions account

Imports of goods and services (see 1-39).

Transfer payments to foreigners (see 2-5 and 3-4).

Interest paid by government to foreigners (see 3-8).

Net foreign investment (4-8) is U.S. exports of goods and services and capital grants received by the United States, net (see below), less imports of goods and services by the United States, transfer payments to foreigners (net), and U.S. Government interest paid to foreigners. It may also be viewed as the acquisition of foreign assets by U.S. residents less the acquisition of U.S.

assets by foreign residents. It includes the statistical discrepancy in the detailed balance of payments accounts.

Exports of goods and services (see 1-38).

Capital grants received by the United States, net (4-2) is mainly the allocation of Special Drawing Rights to the United States.

Gross saving and investment account

Personal saving (see 2-6).

Wage accruals less disbursements (see 1-4).

Undistributed corporate profits with inventory valuation and capital consumption adjustments (see 1-15, 1-16, and 1-17).

Capital consumption allowances with capital consumption adjustment (see 1-25).

Government surplus or deficit (-), national income and product accounts (see 3-13).

Capital grants received by the United States, net (see 4-2).

Statistical discrepancy (see 1-23).

Gross private domestic investment (see 1-20).

Net foreign investment (see 4-8).

Definitions of Sectors

In addition to the breakdowns of GNP that appear in the five-account summary of the NIPA's, GNP can be broken down by sectors—business, households and institutions, government, and the rest of the world.

Business consists of all organizations located in the United States that produce goods and services for sale at a price intended at least to approximate costs of production. In the main, it covers private enterprises organized for profit, both corporate and noncorporate. Mutual financial institutions, private noninsured pension funds, cooperatives, nonprofit organizations serving business, Federal Reserve banks, and federally sponsored credit agencies are also included, as well as government enterprises. Owner-occupied housing, and buildings and equipment owned and used by nonprofit institutions serving individuals, are considered to be busi-

ness organizations selling their current services to their owners.

The production of the business sector can be measured either in terms of the value of the goods and services it produces in the United States or in terms of the costs incurred and the profits earned in its production.

Households and institutions consists

of households of families and unrelated individuals, nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds; the coverage is the same as that of persons as defined in the NIPA's. Production is measured by the compensation of employees.

Government consists of Federal and

State and local government agencies except government enterprises. Production is measured by the compensation of employees.

Rest of the world consists of foreigners as transactors with U.S. residents. Production is measured by net inflows of labor and property incomes from abroad.
